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ABSTRACT

This report is Phase 1 of a two-phase research project to study the extent of use of nontherapeutic drugs in the Armed Services, and to identify demographic correlates of drug abuse. A stratified sample of 36,510 enlisted men, representive of the four Armed Services on a worldwide basis, responded to a 73-item Survey of Drug Use. Reported use of drugs in the period Sep 70-Sep 71 was highest for men in the Army. Army personnel also reported the highest daily drug usage rates. Except for the Army, daily usage rates for drugs were less than 2%. Major correlates of daily narcotic use included age, rank, race, and military service. Nontherapeutic drug use is predominantly reported by younger enlisted men, in the lower pay grades. Higher rates of drug use are reported by non-whites. Use of drugs as a civilian is positively related to drug use in the Service. The report also contains findings on drug acquisition, availability, sources, of supply, and recognition of drug problems by admitted users of nontherapeutic drugs. (Author)

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HumRRO

Preliminary Findings from the 1971 DoD Survey of Drug Use

Allan H. Fisher, Jr.

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72-8

Preliminary Findings from the 1971 DoD Survey of Drug Use

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Alexandria, Virginia

HUMAN RESOURCES RESEARCH ORGANIZATION

March 1972

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16. Abstracts

This report is Phase I of a two-phase research project to study the extent of use of nontherapeutic drugs in the Armed Services, and to identify demographic correlates of drug abuse. A stratified sample of 36,510 enlisted men, representative of the four Armed Services on a worldwide basis, responded to a 73-item Survey of Drug Use. Reported use of drugs in the period Sep 70-Sep 71 was highest for men in the Army. Army personnel also reported the highest daily drug usage rates. Except for the Army, daily usage rates for drugs were less than 2%. Major correlates of daily narcotic use included age, rank, race, and military service. Nontherapeutic drug use is predominantly reported by younger enlisted men, in the lower pay grades. Higher rates of drug use are reported by non-whites. Use of drugs as a civilian is positively related to drug use in the Service. The report also contains findings on drug acquisition, availability, sources of supply, and recognition of drug problems by admitted users of nontherapeutic drugs.

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FOREWORD

This report describes activities performed by the Human Resources Research Organization during Phase I of Work Unit DELTA, a project conducted for the Advanced Research Projects Agency of the Department of Defense. The principal objectives were to determine the incidence of drug abuse in the Armed Forces and to identify demographic correlates of nontherapeutic drug use.

In fulfillment of these objectives, the two-phase effort involved (a) a comprehensive worldwide anonymous survey of drug use, and (b) a small series of personal interviews to provide supporting, validative data for the main survey. The Survey of Drug Use: 1971 is important in that it represents the first attempt to estimate the magnitude of the drug abuse problem in the Armed Forces that includes all major drug categories studied on a worldwide DoD basis.

The assistance and cooperation of the Services was instrumental in performance of this research. Of particular assistance were members of the DoD survey research committee and Mr. Mark M. Biegel, chairman of the committee during design of the survey and technical monitor for the project.

This report describes initial findings from the survey phase. Further analyses of the data are also planned, including multivariate analysis.

The work on Phase I was begun in February 1971 and completed in December 1971, with the survey per se conducted in September 1971. The research was performed by HumRRO Division No. 7 (Social Science), Alexandria, Virginia, Dr. Arthur J. Hoehn, Director. Dr. Allan H. Fisher, Jr. was principal investigator, with Mr. Gary J. Hartzler and Mr. John A. Richards serving as research assistants. Mr. Hartzler designed the data analysis software and performed the computer-based data analyses. Mr. David E. Farley assisted with the data analysis review and interpretation.

The work was performed under ARPA Order 1777 and was administered by the U.S. Army Research Office through Contract Number DAHC 19-70-C-0012.

Meredith P. Crawford
President
Human Resources Research Organization

SUMMARY AND CONCLUSIONS

PROBLEM

This research was initiated in an attempt to provide a comprehensive base of information about the use of nontherapeutic drugs in the Armed Forces. At the time of the study, there was no comprehensive method for the estimation of the extent of use of all major categories of drugs. Furthermore, military efforts to identify drug users were not yet implemented on a worldwide basis for men in each branch of the Armed Forces.

Data resulting from this research will provide information of value in developing programs to alleviate the drug problem. The data will also serve as a bench mark for future evaluation of current efforts in drug abuse prevention and control.

In sum, the objectives of the study were: to estimate the extent of use of all major categories of nontherapeutic drugs on a worldwide basis; to identify correlates of nontherapeutic drug use in the Armed Forces; and to evaluate selected concepts designed to reduce the problem of drug abuse in the Armed Forces, such as drug education and rehabilitation programs.

This report describes activities in Phase I of a two-phase drug research project performed by HumRRO. The project included a worldwide survey using representative samples of enlisted personnel to obtain information on the incidence of drug use in the Army, Navy, Marine Corps, and Air Force. The survey was conducted in September 1971.

Phase II of the project included personal interviews on selected drug-related topics such as reasons for initial drug use, the effects of drug use, and knowledge and attitudes toward drugs and drug-related topics among 230 servicemen at four CONUS locations.

APPROACH

A survey questionnaire was developed to permit the recording of information on the use of nontherapeutic drugs, demographic data, and other drug-related information. The 73-item anonymous questionnaire, Survey of Drug Use: 1971, was designed for self-administration, on either a group or individual administration basis. The instructions requested the respondent not to identify himself either by name or by service number.

Based on an NIMH classification, five drug categories were selected for study: (a) marijuana, (b) other psychedelic drugs, (c) drug stimulants, (d) drug depressants, and (e) narcotic drugs. DoD demographic items were selected for inclusion. Other items on drug-related topics were included at the suggestion of DoD drug experts in rehabilitation and law enforcement.

The extent of use of nontherapeutic drugs was explored in two ways: (a) frequency of recent use—the number of times each of the categories of drugs was used in the last 12 months, and (b) average recent use—the typical schedule of drug use, that is, daily, weekly, monthly, and so forth. The first set of data can be used to estimate the extent of drug use on an annual basis. The second can be used to compare results from this survey with usage rate findings derived from urinalysis techniques or other measures where the average schedule of use is shown in the results.

A sampling plan was generated that provided the basis for extrapolation of the sample drug usage rate estimates to the Armed Services population. A stratified sample was designed, with stratification parameters consisting of (a) branch of service,

(b) location category, and (c) pay grade category. Results of the survey may be projected to the population with known precision, that is, with 95% confidence that the obtained responses characterize any given Service/location/pay grade category.

On a worldwide basis, survey research representatives of each Service implemented the sampling plan by administering the questionnaire to random samples of their enlisted personnel. The date for administration of the survey was 31 August 1971, with the majority of questionnaires actually administered in September 1971. The cut-off date for returns was 12 November 1971.

This report contains findings from a total sample of over 36,500 respondents in the enlisted force. These respondents constituted a random sample of enlisted men in the Armed Forces, on a worldwide geographical distribution basis.

RESULTS

(1) Marijuana was reported used on a far more frequent basis than other categories of nontherapeutic drugs. For the total DoD enlisted population, a projected 30% reported the use of marijuana at some time in the preceding year. The corresponding usage rate for narcotic drugs was less than 12%. However, overall DoD drug usage rates can be misleading as a basis for action decisions because of substantial inter-Service differences in rates of nontherapeutic drug use. Further, only a minority of drug users reported frequent or extensive drug use.

(2) The majority of admitted users of nontherapeutic drugs among enlisted men in the Armed Forces are in the Army. Enlisted men in the Navy, Marine Corps, and Air Force reported lower rates of recent drug use than Army personnel; among admitted drug users in the Armed Forces, a larger percentage of men in the Army also reported more drug use and *daily* drug use than do men in other Services. Drug usage among Army men assigned to Vietnam was especially pronounced.

(3) Demographic correlates of narcotic drug usage among Army enlisted personnel included age, pay grade, military occupational skills, level of education at entry, race, and a variety of age-related indices, for instance, marital status, time in Service, and term of enlistment status. Nontherapeutic drug use was mainly a phenomenon of the younger enlisted man in the lower pay grades.

(4) The use of drugs in Service (as interpreted from reported drug use in the last 12 months) was highly related to the use of drugs as a civilian (before entering the Service). This includes both use of marijuana and use of heroin/narcotics. For example, 85% of men who did *not* use marijuana as civilians also did *not* use it in Service in the past year. But over 70% of men who did use marijuana, even only a few times, as a civilian also reported use of the drug in Service.

(5) Narcotic drug acquisition among Army personnel in Vietnam involved both foreign nationals and fellow servicemen. Servicemen functioned both as free sources of drugs and as salesmen.

(6) According to drug users, narcotic drugs were readily available, both in selected Southeast Asian locations (Vietnam, Okinawa) and in the United States. However, awareness of drug availability tended to vary by drug usage status as well as by pay grade. While drug users across Services were in agreement that narcotic drugs were available, senior NCOs typically reported not knowing whether these drugs were available.

(7) The frequency of use of narcotic drugs was positively related to the amount spent for drugs and to getting into difficulty in the Service for the use of drugs.

(8) The frequent use of narcotic drugs was negatively related to a willingness to volunteer for drug treatment/rehabilitation in the Service. Higher rates of willingness to volunteer were recorded by non-users of drugs, than by drug users.

(9) Men who both used drugs and admitted to a need for help with their drug problem tended to prefer civilian drug counselors/confidants, in contrast to military personnel.

(10) There was a tendency for a small percentage of admitted drug users to report that they had not been exposed to drug education.

(11) Most Servicemen perceived their immediate supervisors as being completely against the use of illegal drugs. A far smaller percentage of Servicemen attributed a correspondingly negative attitude on the part of their immediate supervisors toward the use of alcoholic beverages.

(12) Reported total dollar expenditures by service personnel for alcoholic beverages far exceeded reported expenditures for illegal drugs. More important, the majority (84%) of the sample reported alcohol use, while only a minority (14%) of the sample reported illegal drug expenditures in the previous week.

DoD IMPLICATIONS

(1) The mechanism of the DoD sample survey—that is, using an anonymous questionnaire—is a promising method for estimating rates of nontherapeutic drug use among enlisted men and can serve as a means for periodic evaluation of DoD and Armed Services programs and policies for drug abuse control.

(2) The major emphasis in drug abuse control should be placed on the Army enlisted population, since this Service presents the major DoD drug problem both in total numbers and as a percent of total numbers.

(3) Designers of programs to control drug abuse must recognize that the problem exists principally among younger personnel in the lower pay grades. The demographic characteristics of drug users should also be considered.

(4) Treatment programs that appeal to non-users of drugs (volunteer programs, programs involving military personnel as counselors) may be contrary to the preferences of the drug user, those most in need of assistance. Therefore, such programs should be "consumer-tested" prior to widespread implementation to assure that they appeal to the target group and promote the desired behavior.

(5) A comprehensive study of alcohol abuse should be initiated, since the extent of use of this substance is substantial and hence the potential for abuse exists.

IMPLICATIONS FOR FURTHER RESEARCH

(1) Periodic readministration of a DoD sample survey questionnaire and thorough analysis of the results should be used in the evaluation of DoD and Armed Services programs and policies for drug abuse control.

(2) Additional statistical analyses, particularly multivariate analyses, should be performed on the existing data. These analyses may be used to: (a) study the demographic

characteristics of admitted drug users who are willing to undergo treatment; (b) determine the extent of poly-drug usage among Servicemen at different locations; and (c) develop systems for the prediction of drug abuse by Service, utilizing demographic data, Service data, and civilian drug usage data elements as predictors.

(3) A comprehensive survey of drinking and alcohol abuse should be conducted to yield more definitive information on the extent of use of alcohol in the Armed Services, to identify demographic correlates of alcohol abuse, and to analyze Service reward systems that may contribute to the use and potential abuse of alcoholic beverages.

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Preliminary Findings from the 1971 DoD Survey of Drug Use

INTRODUCTION

Activities performed in the initial phase of a two-phase project[1] with an overall objective of investigating the incidence of use of nontherapeutic drugs in the Armed Forces, are described in this report.

Phase I of the project involved a survey of the nontherapeutic use of drugs among enlisted personnel. An anonymous, fully structured questionnaire was developed for administration to a worldwide random sample of enlisted men in the Army, Navy, Marine Corps, and Air Force. The survey questionnaire mainly addressed the extent of nontherapeutic drug use and demographic factors of potential association with drug use. Additional items on other drug-related subjects were also included.

Phase II of the project encompassed the study of selected drug-related topics in more depth and detail than was possible with the fully structured Phase I questionnaire. In Phase II, personal interviews were conducted with a limited number of servicemen at Armed Forces sites in the continental United States (CONUS) only.

MILITARY PROBLEM

Selected survey data and anecdotal evidence suggest that drug abuse may constitute a contemporary military problem of some importance. However, the basis for a comprehensive estimation of the extent of nontherapeutic drug use that can be immediately applied to the worldwide population of enlisted men is not yet available. Although an initial drug detection system, limited to the identification of opiates, amphetamines, and barbiturates, is undergoing worldwide implementation in the Armed Forces, the urgency of the problem and the need for estimates of the use of all major drug categories necessitates employing alternative methods of measurement that provide immediate data. This report describes results obtained by administering an anonymous questionnaire sample survey process.

The services currently employ biochemical techniques which will be used in developing a military drug testing system until at least July 1973 (Taylor, 1971). The system will be phased into operation on a worldwide basis over time. Until the entire system is in operation, estimates of drug use in the Armed Forces will be limited to the geographical areas possessing bio-assay equipment. Furthermore, no estimates of the use of hallucinogenic substances will be available from the detection system.[2]

For these reasons, survey research techniques remain the sole method to obtain estimates of nontherapeutic drug use that are representative of a worldwide population on an immediate basis, and are comprehensive in terms of providing estimates of the use of each major category of drugs.

[1] HumRRO Work Unit DELTA, DoD Nontherapeutic Drug Usage Survey and Research.

[2] The system does not provide estimates of the use of marijuana, hashish, LSD, or other so-called psychedelic (hallucinogenic) drugs (Taylor, 1971).

RESEARCH PROBLEM

Estimating the magnitude of the problem of nontherapeutic drug use in the worldwide population of enlisted personnel required use of a data collection system applicable to a broad population on a practical, responsive basis. The mechanism of a Department of Defense sample survey was selected. This approach, using an objective (multiple-choice) questionnaire, afforded a flexible and efficient administration capability. The questionnaire could be designed for either group or individual administration. Anonymity provided a degree of protection to the subject—protection deemed of major importance in studying a sensitive topic such as illicit drug use. The results could be analyzed efficiently using computer-based programs. Random sampling procedures could be employed in the selection of subjects to assure that results of the survey are representative of enlisted personnel in the Armed Forces on a worldwide basis, and that results from the sample could then be extrapolated to the population.

For these reasons, a DoD-wide, anonymous Survey of Drug Use was designed. The survey content was to cover the following objectives: (a) to determine rates of nontherapeutic drug use; (b) to identify demographic correlates of nontherapeutic drug usage; and (c) to identify selected correlates of the drug problem especially important to the Services (e.g., reported use of drugs on duty, willingness to admit to having a problem with drugs, and willingness to volunteer for drug rehabilitation). The design and implementation of the DoD Survey of Drug Use constituted Phase I of this research effort.

Phase II consisted of an exploratory investigation of selected drug-related topics in more depth and detail than was permitted by the format of the questionnaire. Research objectives included exploration of (a) reasons for drug use, (b) personal effects of drug use, (c) observed/reported effects of drug use, (d) attitudes toward drugs and drug users, and (e) awareness of various programs for drug rehabilitation. The personal interview, using a semi-structured personal interview guide as an aid, was employed as a mechanism to probe the selected topic areas.[1]

Field interview teams composed of young men with military experience conducted the interviews. One sample interviewing site in CONUS was selected for each of the Armed Services, and from 50 to 70 interviews were conducted with enlisted and officer personnel at each site. Results, while *not* representative of the entire Service, provide valuable contributions to the study of selected drug topics.

Findings of the Phase II interview research will be described in HumRRO Technical Report 72-9, *Analyses of Selected Drug-Related Topics: Findings From Interviews at Four Armed Service Locations*, March 1972. The present report will describe the activities and major results of Phase I.

PHASE I DESCRIPTION

Activities in Phase I included (a) item pool development through collection and analysis of anonymous drug use questionnaires previously employed in civilian and military drug survey research efforts, (b) development of a 73-item multiple-choice Survey of Drug Use: 1971 and design of a compatible OPSCAN (optical scanning) answer sheet, (c) design of a DoD-wide sampling plan, (d) generation of a detailed data analysis and reporting plan, (e) preparation of data analysis programs, (f) conduct of the data analyses described in the data analysis plan, and (g) preparation of a technical report of the initial findings.

[1] A legal statement assuring subjects protection from prosecution based on r reports of drug use was obtained for use in building confidence.

Initial findings of the survey are summarized in this technical report. Each of the first five project activities is briefly discussed.

Item Pool Development

Beginning in February 1971, copies of current questionnaires on drug use were requested from military and civilian survey research drug experts and an item pool of drug use questions was developed. The items were studied to determine the manner in which reports of drug use were queried, and to identify the types of drug categories employed by the researchers.

Questionnaire Development, Pretest, and Revision

With the help of drug research experts, a survey questionnaire was drafted and revised to include (a) all logical drug categories, (b) items on the use of alcohol for comparability, and (c) items on drug treatment and rehabilitation. An extended version was pretested on 50 Army enlisted men at Fort Belvoir, Virginia, and Fort Meade, Maryland, to determine whether military subjects would admit the use of nontherapeutic drugs, to identify ambiguities, and to estimate time required to administer the questionnaire. It was further revised with the assistance of representatives of the DoD Survey Research Committee.

Following additional DoD guidance, the instrument was shortened to reduce administration time and the literacy level was reduced to increase comprehension by lower mental standards personnel, a requirement supported by previous HumRRO research (Sticht, 1970). The revised form of the questionnaire has an item reading level of approximately the 6th to 7th grade (using a Flesch count system), appropriate for the lower mental standard personnel. The revised form of the Survey of Drug Use: 1971 includes 73 items and uses an optical scan answer sheet.[1]

In final form, the Survey of Drug Use: 1971 is designed to estimate the use of major classes of nontherapeutic drugs, principally (a) marijuana, (b) other psychedelic drugs, (c) stimulants, (d) depressants (sedatives/tranquilizers), and (e) narcotics. Items measure the frequency of use in the past 12 months (recent usage), and the prevalence of use (average schedule of use of each category of drugs, e.g., daily, weekly, etc.). In addition to items on drug usage, many attitudinal and demographic items are included to permit analysis of the attitudes of servicemen toward drug topics and to provide descriptive data on the demographic characteristics of drug users.

The final version of the survey questionnaire was produced for administration to a worldwide sample of enlisted men with the date for administration commencing 31 August 1971.

Objectives of the Sampling Plan

The sampling plan was designed to provide estimates of illegal drug usage rates for enlisted personnel in each of the Armed Services, by pay grade category, within selected location categories for each Service. The sampling plan was designed to ensure that the number of enlisted personnel surveyed in each specified subpopulation was large enough that the error range for each estimated drug usage rate *would not exceed* plus-or-minus 5%.

Given these specifications, a sampling plan was developed to guide each Service in the identification of an adequate sample, by pay grade category within location category.

[1] The answer sheet permits the respondent to mark his answers directly on the sheet. The sheet is then read and "scored" by an optical character recognition device, generating a record of responses for computer edit and data analysis. The procedure replaces manual keypunch activities.

The sampling plan was provided to representatives of the DoD Survey Research Committee for implementation.

Functions of the Data Analysis and Reporting Plan

The data analysis and reporting plan[1] prepared to communicate proposed initial data analyses and the proposed organization of the technical report of findings provided an opportunity for drug research personnel in the DoD and other interested government agencies to review questionnaire content and to specify additional analyses germane to their particular interests.

The plan also served to guide the selection and development of computer programs for the analysis of data. Given the anticipated volume of the survey—well in excess of 30,000 cases—special programs were needed to edit and analyze the data efficiently, as well as to produce reports in an output form readily comprehensible to drug experts with no programming background. For these reasons, special computer programs were written and others modified to analyze the survey data.

PHASE II DESCRIPTION

Phase II was designed to provide in-depth information on such topics as reasons for the use of nontherapeutic drugs, attitudes towards drug use among Servicemen, and reported military job performance effects of drug use.

Activities included (a) selection of four CONUS interview sites, to include interviews with officers and enlisted men in each branch of the Armed Services, (b) design and pretest of a semi-structured personal interview guide, (c) performance of interviews at the designated CONUS locations, (d) data analysis, and (e) preparation of a technical report of findings.

Phase II interviews were conducted in September and October 1971. Results of the interviews were analyzed in November 1971. The report produced is HumRRO Technical Report 72-9 (Fisher, 1972).

[1] The data analysis and reporting plan for the survey was prepared in September 1971 by Allan H. Fisher, Jr. and Gary J. Hartzler.

METHOD

This section includes: (a) a discussion of the approach taken in the Survey of Drug Use: 1971 questionnaire, (b) a description of the content of the questionnaire, (c) a statement of the sampling objectives of the survey and an enumeration of the size and characteristics of the study sample, (d) a discussion of the procedures employed by the Services in sample selection and questionnaire administration, and (e) a description of the analyses performed on the survey data.

QUESTIONNAIRE APPROACH

The purpose of the questionnaire was to provide a vehicle by which respondents who used drugs would be encouraged to provide information. It was assumed that drug users would be reluctant to admit the illegal behavior of nontherapeutic drug use. For this reason, the opening statement for the questionnaire stressed research aspects of the study, anonymity of response, the nonevaluative approach, and the need for honest answers from the respondent. An appeal was made to provide honest answers that might benefit fellow servicemen. The following "Background" statement was the first material presented to the respondent.

BACKGROUND

This questionnaire is part of a major research project designed to collect information on the use of drugs in the Armed Forces. You are one of over 40,000 servicemen selected to participate in this world-wide survey.

This questionnaire is self-administered and anonymous. You cannot be identified, because you are asked not to sign your name. DO NOT SIGN YOUR NAME ANYWHERE. Do not put your name or service number anywhere on the answer sheet or the questionnaire.

This survey is not for or against drugs. Its only purpose is to get facts, opinions, and attitudes about current military drug education and rehabilitation programs, and to estimate current levels of drug use world-wide.

Your honest answers to this survey can help servicemen who have drug problems, now and in the future. Facts learned from this survey may be used in many ways. They will help to develop more effective programs of drug education and can lead to better drug treatment facilities.

Instructions for answering these questions are on the next page. Read them carefully before you begin.

HONEST ANSWERS TO ALL QUESTIONS ARE NEEDED

This survey is conducted by HumRRO, the Human Resources Research Organization. HumRRO is an independent, non-profit corporation established to conduct research.

Considerable care was exercised in defining drug categories for respondents. Both formal terminology (e.g., sedatives) and "street names" (e.g., "downers") were given. The following drug definitions (verbatim extracts from the Survey) were used:

Drug Category	Definitions
Marijuana	Questions 45-49 are about marijuana. Marijuana is also called grass, or pot, or weed. People who use marijuana smoke *pot* or do *grass*.
Other Psychedelic Drugs	Questions 50-55 deal with drugs such as LSD, peyote, mescaline, DMT, and other psychedelic drugs. Also include hashish. Other names for these drugs are: *acid* (LSD) and *hash* (hashish).
Drug Stimulants	Questions 56-61 deal with *stimulants* like Benzedrine, Dexedrine and Methedrine. They are called *speed* or *pep pills* or "ups" or *Bennies* or *Dex*. Another stimulant is *cocaine* (Snow or Coke). All these questions deal with *illegal use* of these drugs. That means to use the drug *with no prescription* from a doctor.
Sedatives or Tranquilizers (Depressants)	Questions 62-67 deal with drugs called *sedatives* or *tranquilizers*. These drugs include barbiturates. Sedatives are called *"downers"*, *goof balls*, and *barbs*. All of these questions deal with the *illegal use* of these drugs. That means use *without a prescription*.
Narcotic Drugs	Questions 68-73, deal with *narcotic* drugs. These are drugs like heroin, codeine, and opium. Heroin is called *smack*, *scag*, or *H*. All these questions deal with the *illegal use* of narcotic drugs. This means use *without a prescription*.

The concept of nontherapeutic drugs was communicated by use of the term drugs or illegal drugs. The questionnaire also included a definition of the concept of nontherapeutic drug use. The following instruction appeared in the questionnaire prior to the first item.

IMPORTANT NOTE

When the word "drugs" is used, this means illegal drug use, use against the law. Here are 2 examples of this kind of drug use:

1) Use of non-prescription drugs (like smack, grass, or acid); and
2) Use of prescribed drugs for a high, not for medical purposes (like using pep pills for a high).

In an attempt to reinforce the concept of nontherapeutic drug use, many of the drug usage items contained the option "never used these drugs without a prescription."

QUESTIONNAIRE CONTENT

The Survey of Drug Use questionnaire includes 73 items that may be categorized as follows:

	Number of Items
Drug usage/acquisition items	35
Attitudinal items	22
Demographic items	16

The distribution of items parallels the three major objectives of the study: (a) estimation of rates of nontherapeutic drug usage, (b) establishment of demographic correlates of drug use, and (c) identification of other correlates of drug usage for research purposes.

The principal objective of the study was the estimation of *current* usage rates for nontherapeutic drugs—the frequency and typical schedule of drug use—and thus the extent of the problem faced by the Services at present and in the recent past. Questions were developed on *recent drug use* (past 12 months) and *average drug use* (i.e., daily, weekly, or monthly). This orientation to the *current* situation is essential in developing a perspective for addressing the drug abuse problem as it exists in the Armed Forces, as opposed to prior (civilian) environments. Furthermore, measures taken in this survey provide the basis for subsequent evaluations of the effectiveness of changes in policies and programs implemented to alleviate drug abuse in the Armed Forces.

Estimates of the percent of men who used each of the five types of drugs *in the past 12 months*, and frequency of use in that period, may be computed. In conjunction with the analysis of frequency of recent usage, analysis of average rate of usage data—*how often* the drug is used, that is, daily, several times a week, and so forth—contribute to an understanding of the current drug use.

Another major objective of this research was identification of demographic correlates of nontherapeutic drug use. For this reason, 13 demographic items were included in the questionnaire in addition to the major parameters of (a) Service, (b) location, and (c) pay grade. Finally, selected items are included on the following topics: (a) origins of drug use, (b) details of drug acquisition, (c) recognition of drug use and local drug availability, (d) selected items on drug usage as related to job performance, (e) attitudes toward alternative drug rehabilitation programs, and (f) selected alcohol prevention and control items (for comparison with analogous items about illicit drugs).

DESCRIPTION OF THE SAMPLE

In this section, the sample objectives and associated sample (size) requirements are presented and contrasted with the numbers of questionnaire returns that form the basis for the survey findings.

Survey Objectives and Sample Requirements

The survey sample was designed to satisfy the following criteria:

(1) Provide estimates of illegal drug usage rates for enlisted men in each of four Armed Services—Army, Navy, Marine Corps, and Air Force.

(2) Provide estimates of drug use rates by pay-grade category for selected major location categories for each Service—CONUS, Europe, and Pacific/Southeast Asia. The pay-grade categories were E1-3, E4, E5, E6, and E7-9.
(3) Provide estimates by pay-grade category, by Service where applicable, for each of several countries within the category of Southeast Asia (e.g., South Vietnam, Thailand).

The representatives of the DoD Survey Research Committee provided population counts for their respective Services at the level of detail required above, for example, by location category and pay-grade category within Service. The population counts were for Summer 1971. Given these data, HumRRO estimated the sample requirements necessary to accommodate the above objectives.

A statistical formula was used to determine the sample requirements for each Service/location/pay-grade category (Hansen, *et al.*, 1953). The following objective for precision was employed: The number of persons to be surveyed in each category had to be of sufficient size that the error of estimate of the various drug usage rates should not exceed 5%, at the 95% confidence level, assuming a (maximum) usage rate of 50% (see further discussion on p. 12).

Given the specified population counts and the various assumptions and study objectives noted above, the sample requirement was calculated for each Service/location/pay-grade category. In total, a DoD-wide sample requirement of 38,989 was found. The sample requirement by Service is given in Table 1.

Table 1

Summary of Sample Requirements, By Service

Service	Size of Sample	Percent of Service
Army	10,647	1.2
Navy	9,129	1.8
Marine Corps	6,938	3.6
Air Force	12,275	2.0
Total	38,989	1.8

Survey representatives of each Service were provided with a matrix of sample requirements by location/pay-grade category. The particular locations surveyed differed between Services only to the extent that there was a negligible in-country strength at some locations for certain Services, hence not all Services had requirements at all locations. Adequate supplies of questionnaires and answer sheets were provided to the Services to permit accommodation of the sample requirements.

Number of Survey Returns

The Services employed random sampling procedures to identify subjects for participation in the survey (see next section for details). Administration commenced on 31 August 1971, and the cut-off date for returns of the Survey answer sheets was 12 November 1971.

A total of 37,167 answer sheets were returned by the Services. This total included answer sheets for which no information was provided on basic study parameters—Service, location, or pay-grade. Answer sheets lacking this basic information were deleted from

consideration, the resulting number of usable answer sheet returns being 36,510. This number was the sample size employed in each total sample computation. The distribution of usable returns by Service is given in Table 2.

Table 2

Summary of Usable Survey of Drug Use Answer Sheet Returns, by Service

Service	Number of Returns	Percent of Original Requirement[a]
Army	8,643	81.2
Navy	6,830	74.8
Marine Corps	6,703	96.6
Air Force	14,334	116.8
Total	36,510	93.6

[a]For analysis, the weighting system used adjusted for the differential return rates.

Accommodation of the original sampling requirement totals, by Service, was generally satisfactory. Indeed, the Air Force exceeded their requirement. However, inspection of the number of answer sheet returns by location/pay-grade category revealed that certain categories did not possess a sample of sufficient size to satisfy the original objective of 5% error with 95% confidence for each category. For this reason, aggregation of certain location subcategories was performed, based on an updated estimate of the extent of precision attainable for the number of usable answer sheet returns per category. The Service/location categories available for data analysis are shown in Table 3.

Table 3

Service Location Categories Resulting From Analysis of Survey Returns

Service Location	Army	Navy	Marine Corps	Air Force
CONUS (Including Alaska)	X	X	X	X
Europe				
Europe	X	X		X
Turkey				X
Southeast Asia				
South Vietnam	X			X
Thailand				X
Okinawa			X	
Taiwan				X
Other Southeast Asia and Pacific Countries	X	X	X	X

The precision of estimates of drug usage rates (percentages) varies, depending on (a) the extent of aggregation used in producing the percentage (i.e., the number of cases) and (b) the degree to which the percentage differs from 50%. The *poorest* precision is generally about ±5%, at the 95% level of confidence, for a percentage of approximately 50% that involves no aggregation of subelements; for example, such precision would hold for a drug usage rate of about 50% based on responses from a pay grade at one location category for one Service—the finest level of detail employed in this sample. As usage rates are estimated across categories/services into high levels of aggregation (e.g., the entire sample), for a fairly low (or high) usage rate (e.g., percentages of 1% to 10%), precision becomes much greater—about ±.3% at the 95% level of confidence. The precision of usage rates (percentages) shown in the report generally ranges from ±5% to ±.3%, with the greatest precision for percentages departing appreciably from 50% and based on large aggregations of subelements. Thus, more confidence can be placed on estimates for a total Service (or DoD) for low usage rates.

In general, findings of this survey expressed as rates are accurate to within approximately plus-or-minus 5% at the level of detail of pay-grade category within location category, by Service.

DETAILS OF SURVEY ADMINISTRATION

Sample Selection Procedures

Each of the Services employed a random selection procedure to accommodate the requirements of the stratified sample design provided for guidance. Table 4 summarizes the procedures used by the Services.

Table 4

Sampling Procedures, by Service

Service	Random Number Specified for Inclusion	Level of Specification	Exceptions
Army	Yes	Single set of numbers for selected commands	100% sampling in 22nd and 90th Replacement Battalion, USARV
Navy	Yes	Single number for CONUS type 1 or 2 duty	100% sample of selected overseas activities
Marine Corps	Yes	Variable by pay grade and location	None
Air Force	Yes	Variable by pay grade and location	None

Questionnaire Administration Procedures

The Survey of Drug Use: 1971 was designed for either individual or group administration. Instructions for completing the survey were contained in the survey booklet. A description of the background of the survey stressed anonymity, and emphasized the research aspect of the survey and the need for honest answers. The methods of administration employed by the Armed Services are summarized in Table 5. The Army and the

Marine Corps employed group administration of the questionnaire as their standard approach. The Air Force relied on individual completion. The Navy commands were permitted to use either group or individual administration procedures.

Table 5

Questionnaire Administration Procedures, by Service

Service	Administration Procedure	Exceptions
Army	Group administration	Individual administration permitted for make-up sessions
Navy	Either individual or group administration	- - -
Marine Corps	Group administration	Individual administration permitted, if group administration is impractical
Air Force	Individual completion	- - -

DATA ANALYSES

Data analyses were performed by computer, following the analysis and reporting plan for the Survey of Drug Use. The analyses consisted of contingency table analyses, in which pairs of variables were cross-tabulated.

In processing the survey sample returns, weights were computed for application against each man's record. Weights were derived from the ratio of population counts of the number of men in each Service/location/pay-grade category, divided by the number of usable answer sheet returns (sample size) in the respective category. Application of these weights permit the extrapolation of sample survey findings to the respective populations. Thus, the expected number of drug users in the population can be projected for each subcategory, such as Marine Corps/Okinawa/E5. The application of weights also permits the aggregation of findings over pay-grade, or location, or Service. Thus, the population projections of expected drug users can be computed for an entire Service, or for all Services combined into a total DoD population of enlisted men.

In total, approximately 2000 tables were generated as a result of statistical analyses of the Survey of Drug Use: 1971. The "Results" section of this report includes selected tables which present, succinctly and comprehensively, the major results of this survey.

RESULTS

Preliminary findings from the Survey of Drug Use: 1971 are presented in this section of the report. Practicality for reporting led to selection of findings of greatest interest for inclusion in the report, since detailed data on all findings are available for Services and DoD use.

ESTIMATED NONTHERAPEUTIC DRUG USAGE RATES

Recent Drug Usage

Estimates of the percent of men who used each of five categories of drugs *in the past 12 months* were computed. Use of a drug in the last year (regardless of frequency) was considered to constitute "recent usage."[1] Recent usage rates were computed by Service, and projected for the total DoD population. Results appear in Table 6.

Table 6

Use of Each Category of Drug in the Last 12 Months: All Services

Drug Category	Projected DoD Percentage[a]	
	Any Use	No Use
Marijuana	29.9	70.1
Other Psychedelic Drugs	18.8	81.2
Stimulants	17.9	82.1
Depressants	12.2	87.8
Narcotic Drugs	11.7	88.3

[a]Percentages shown, here and in all following tables, are extrapolated from the survey sample data and weighted according to the composition and size of the military force as of 31 August 1971.

NOTE: Percentages are *not* additive, due to the possibility of multiple drug use.

The majority of the sample reported no use of drugs in the past year. For the projected total DoD population of enlisted men, the category of drug reported most frequently used in the last 12 months was marijuana (29.9%). Rates of recent usage of the other categories of drugs were considerably lower. Recent narcotics usage was reported by 11.7% of the total DoD sample. It is also useful to examine the frequency of use of each category of drugs in the last 12 months. Figure 1 provides these data for the total DoD population.

Estimated recent drug usage rates for the total DoD sample are heavily influenced by the reported recent drug usage rates of Army personnel, who constitute the majority of enlisted men in the aggregate projected DoD total population. For this reason, it is essential to review the reported rates of recent use of nontherapeutic drugs among enlisted men in each Service. Table 7 shows that men in the Army had the highest

[1]Men who left the question blank were assumed to be non-users of the respective drug. Hence usage rates are based only on admitted recent drug users weighted to the population, divided by total population.

Frequency of Usage of Each Category of Drug in the Last 12 Months: All Services

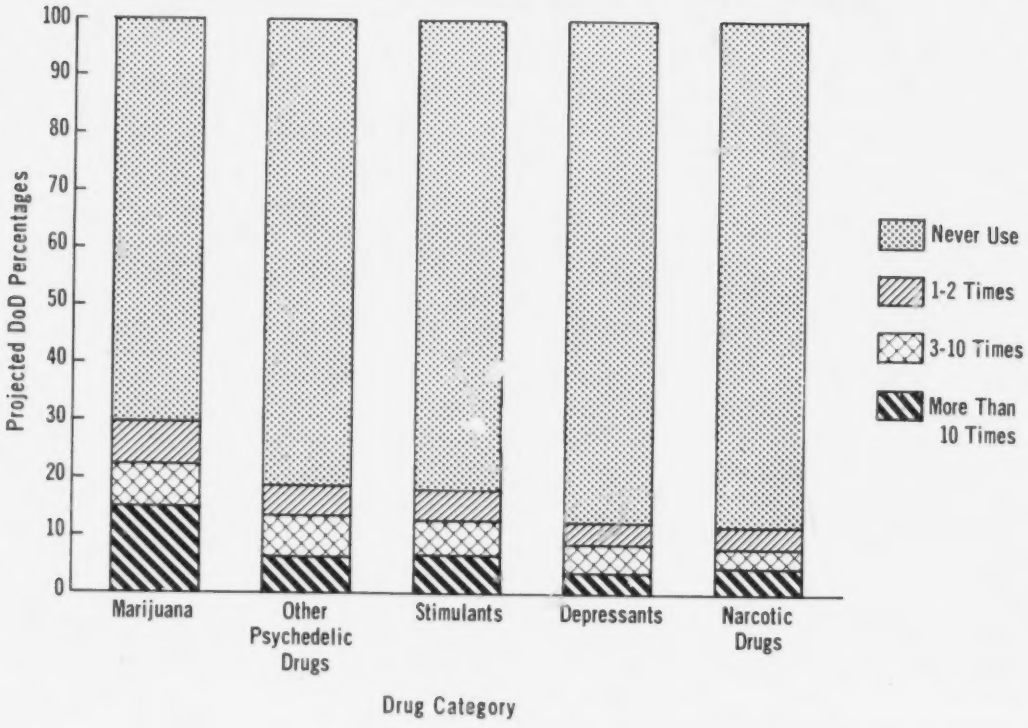

Figure 1

Table 7

Use of Drugs in the Last 12 Months, by Drug Category and Service: All Services
(Projected Percentage)

Service	Marijuana	Other Psychedelics	Stimulants	Depressants	Narcotics
Army	42.7	29.4	28.0	20.4	20.1
Navy	21.8	12.1	11.9	6.7	6.1
Marine Corps	38.0	22.9	24.1	14.8	13.6
Air Force	16.3	8.3	7.1	4.6	4.2
DoD	29.9	18.8	17.9	12.2	11.7

reported rates of recent usage of each drug category, Air Force the lowest. The largest range in variability of recent drug usage occurred for marijuana, with a 42.7% recent usage rate reported by men in the Army against only 16.3% by men in the Air Force.

Frequency of Recent Drug Use

The previous findings indicated substantial inter-Service differences in the recent use of each category of drugs. These inter-Service differences complicate inter-Service comparisons of the *frequency* of recent use of each category of drug. To perform these comparisons, a common base is required, for each drug category, for each Service. For this reason, data on the frequency of drug usage in the last 12 months were re-percentaged based on the responses of *users of each drug only.*[1] This common base permits legitimate comparison of the frequency of drug use between Services, even when there are marked differences in the recent usage rates, because usage frequency is based on only those men who are users of each drug, in each Service. Thus, one can compare the frequency of recent use of marijuana in the Army against the frequency of recent use of marijuana in the Air Force—in spite of the fact that the recent usage rates vary by 42.7% vs. 16.3%. Figure 2 illustrates the procedure; note that the two frequency distributions of marijuana users only can be compared, in spite of the substantial difference in recent usage reported in the Army and the Air Force. Tables 8-12 show the frequency of use for each of the five categories of drugs among *admitted recent users* of drugs for each of the four Services and for the DoD total.

The frequency of recent use of *marijuana* is given in Table 8. It should be recalled (Table 6) that the majority of the sample (70.1%) reported no use of marijuana in the last 12 months. There was an appreciable difference among Services (Table 7) on the criterion "any use vs. no use" in the past year; the effects of these differences are removed by basing the *frequency* analyses on marijuana users only. As shown in Table 8, the modal frequency of use of marijuana in the last 12 months was reported to be over 100 times (24.5%); however, an essentially equivalent percentage reported use only once or twice. There was little difference among Services, except that fewer Air Force users (17.8%) reported frequent marijuana use.

Results for the frequency of recent use of *psychedelic drugs other than marijuana* are shown in Table 9. The majority of the sample (81.2%) had reported no use of these drugs in the last 12 months; there was an appreciable difference among Services in the recent use of these drugs. Among admitted recent users of the drugs, the modal frequency of recent use of psychedelic drugs other than marijuana was reported to be over 10 times (34%); approximately 28%, however, reported use of these drugs only once or twice. There was little difference among Services in the reported frequency of recent use of these drugs. Users in the Army were only slightly more likely to report frequent use (34.3%), than in the Air Force (31.2%); the highest rate of frequent use was reported in the Marine Corps (37.1%).

Findings for the frequency of recent use of *drug stimulants* are given in Table 10. The majority of the sample (82.1%) had reported no use of drug stimulants in the last 12 months; there was an appreciable difference among Services. Among the users (Table 10), there was a negligible difference between usage frequency categories for drug stimulants. The modal frequency of recent use was reported as 4-10 times (21.3%); however, 28% of the sample reported using the drugs only once or twice in the past year. There was a minor difference among Services in the reported frequency of recent use. Users of the

[1] This same logic applies to the inter-Service comparisons of *average drug use*, given next in this section of the report.

Recent Marijuana Use Distributions for the Total Army and Air Force Populations Plus Re-percentaged Frequency Distributions

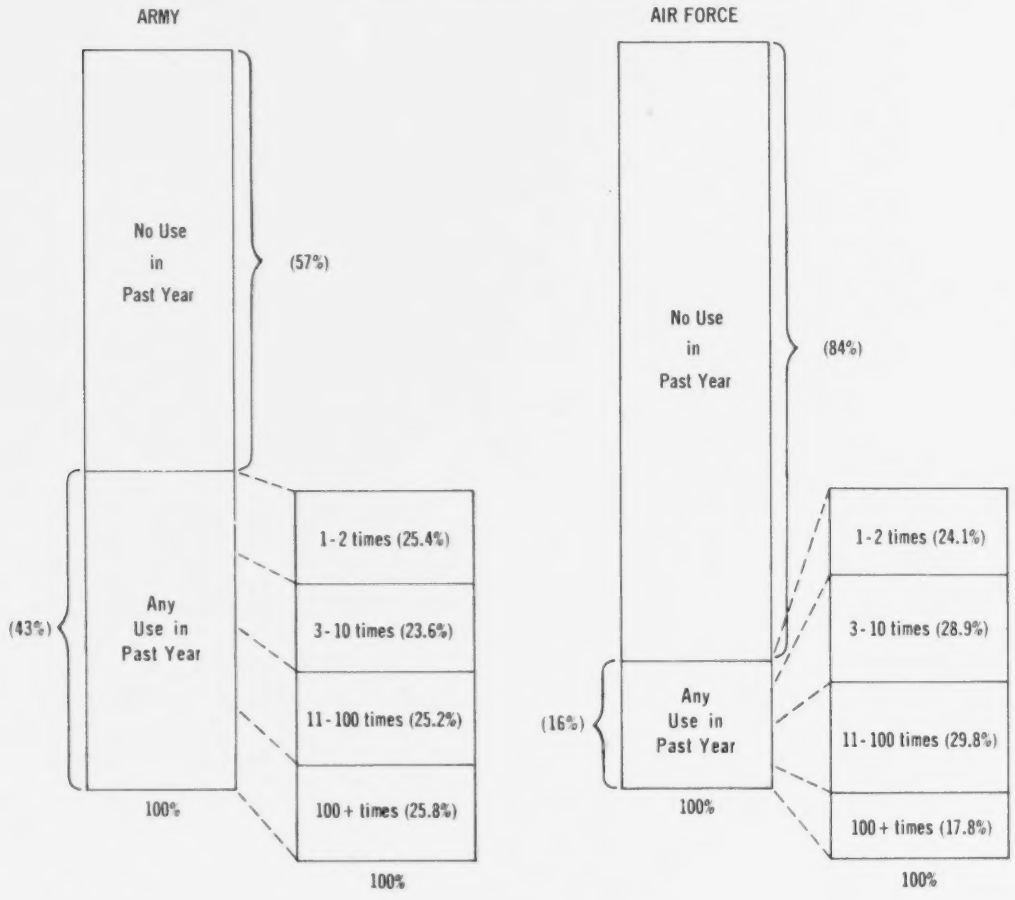

Figure 2

Table 8

Frequency of Use of Marijuana in the Last 12 Months, by Service: Marijuana Users Only
(Projected Percentage)

Frequency	Army	Navy	Marine Corps	Air Force	DoD
Once	15.4	17.1	11.0	14.9	15.1
Twice	10.0	9.4	6.9	9.2	9.4
3 Times	7.6	7.9	9.0	10.7	8.3
4 - 10 Times	16.0	15.9	17.2	18.2	16.5
11 - 30 Times	13.4	12.1	12.8	12.9	13.0
31 - 50 Times	5.9	7.6	9.6	10.2	7.3
51 - 100 Times	5.9	6.0	7.7	6.1	6.1
Over 100 Times	25.8	23.9	25.8	17.8	24.5

Table 9

Frequency of Use of Psychedelics Other Than Marijuana in the Last 12 Months, by Service: Users of These Drugs Only

(Projected Percentage)

Frequency	Army	Navy	Marine Corps	Air Force	DoD
Once	14.6	14.6	13.7	15.1	14.6
Twice	12.9	12.5	11.0	16.9	13.1
3 Times	16.4	13.1	12.3	14.1	15.2
4 - 10 Times	21.7	27.0	25.8	22.8	23.1
Over 10 Times	34.3	32.9	37.1	31.2	34.0

Table 10

Frequency of Use of Stimulant Drugs in the Last 12 Months, by Service: Stimulant Drug Users Only

(Projected Percentage)

Frequency	Army	Navy	Marine Corps	Air Force	DoD
Once	13.0	15.7	12.1	18.1	13.9
Twice	15.9	11.8	8.1	13.9	14.1
3 Times	14.4	13.7	8.4	9.0	13.0
4 - 10 Times	20.3	23.0	24.8	20.8	21.3
11 - 30 Times	12.3	11.4	16.6	14.8	12.9
31 - 50 Times	9.1	10.9	10.0	13.5	10.0
51 - 100 Times	6.0	6.4	8.1	3.4	6.0
Over 100 Times	8.9	7.1	11.9	6.6	8.7

drug stimulants in the Army and Marine Corps were slightly more likely to report the use of drug stimulants over 100 times in the last year than were users of the drugs in the Air Force.

Results for the frequency of recent use of *drug depressants* (sedatives/tranquilizers) are given in Table 11. The majority of the sample (87.8%) had reported no use of depressant drugs in the last 12 months; there was an appreciable difference among

Table 11

Frequency of Use of Depressant Drugs in the Last 12 Months, by Service: Depressant Drug Users Only

(Projected Percentage)

Frequency	Army	Navy	Marine Corps	Air Force	DoD
Once	14.4	19.1	10.3	18.3	15.0
Twice	16.5	11.3	10.8	13.5	14.9
3 Times	18.7	17.6	11.8	13.7	17.3
4 - 10 Times	21.5	25.7	30.2	28.4	23.7
Over 10 Times	28.9	26.4	37.0	26.1	29.1

Services in the recent use of these drugs. In the analysis (Table 11) based only on admitted recent users of depressant drugs in each Service, the modal frequency of use of these drugs was reported as over 10 times (29.1%); an approximately equal percent reported using the drugs only once or twice in the past year. There was a negligible difference among Services in the reported frequency of recent use of depressants. Users in the Marine Corps were more likely than in the other Services to report use of drug depressants over 10 times in the past year.

Findings on the reported frequency of recent use of *narcotic drugs* are given in Table 12. The majority of the sample (88.3%) had reported no use of narcotic drugs in the last 12 months; there was an appreciable difference among Services. The analysis based solely on reported users of narcotic drugs in each Service (Table 12) shows that the modal frequency of use was reported as over 50 times, the maximum category (24.6%); conversely, over 23% reported using narcotic drugs only once or twice in the past 12 months.

Table 12

Frequency of Use of Narcotics in the Last 12 Months, by Service: Narcotic Drug Users Only

(Projected Percentage)

Frequency	Army	Navy	Marine Corps	Air Force	DoD
Once	18.2	18.7	10.5	15.8	17.2
Twice	17.7	14.7	9.7	12.0	16.0
3 Times	11.0	17.0	14.9	10.4	12.0
4 - 10 Times	14.4	21.8	22.6	22.7	17.0
11 - 50 Times	12.0	11.6	15.3	21.1	13.2
Over 50 Times	26.7	16.2	27.0	18.0	24.6

There was a substantial difference among Services in the reported frequency of recent use of narcotic drugs. Army users were more likely to report the most frequent use compared to users in the Navy or Air Force.

In summary, the inter-Service differences in rate of any reported recent usage of the various drug categories are also in evidence in terms of the number of times that admitted recent users of the various drug categories report the use of each type of drug. There was a slight but consistent tendency for Army or Marine Corps drug users to report more frequent drug use than Navy or Air Force drug users. This finding should be considered in light of the results for the items on frequency (rate) of average drug use, given in the following section.

Average Drug Use

The rate of average drug usage was analyzed in addition to the previous analysis of frequency of recent usage. Tables 13-17 indicate the reported typical schedule of use of each of the five drug types, among admitted users of each category of drug only. Results are separately tabulated by drug category, for each of the four Services and for the DoD total.

The results for *marijuana* usage appear in Table 13. Analyses are based on only admitted marijuana users in each Service, to remove differences between the Services in the rate of marijuana use. The majority of all respondents had reported that they never

Table 13

Average Rate of Use of Marijuana, by Service: Marijuana Users Only
(Projected Percentage)

Frequency	Army	Navy	Marine Corps	Air Force	DoD
Every Day	22.8	10.8	7.9	9.1	17.0
Several Times a Week	23.4	26.8	23.6	19.6	23.5
Once a Week	15.4	10.9	17.7	10.6	14.2
Once a Month	13.3	11.1	15.3	16.2	13.5
Less Often Than Monthly	25.1	40.4	35.5	44.5	31.8

Table 14

Average Rate of Use of Psychedelic Drugs, Other Than Marijuana, by Service: Users of These Drugs Only
(Projected Percentage)

Frequency	Army	Navy	Marine Corps	Air Force	DoD
Every Day	14.6	3.7	2.3	5.5	10.4
Several Times a Week	18.8	11.9	12.2	8.0	15.7
Once a Week	14.5	14.8	14.2	8.2	13.7
Once a Month	15.0	15.4	14.6	18.2	15.4
Less Often Than Monthly	37.1	54.2	56.7	60.2	44.8

used marijuana. For all marijuana users in the total sample, the most frequent use of marijuana is on a less often than monthly basis (32%). There was an appreciable difference among the Services in average rate of use of marijuana. Users in the Army were far more likely to report daily use of the drug than users in the other Services.

Results for the average use of *psychedelic drugs other than marijuana* are given in Table 14. The analyses are based on only admitted users of these drugs; the majority of all respondents had reported that they never used these drugs. Among users of these drugs, the most frequent reported rate of use of psychedelic drugs other than marijuana is on a less often than monthly basis (almost 45%). There was an appreciable difference among Services in the reported average rate of use. Army users were far more likely to report daily use of the drugs than were users in the other Services.

Findings for the average rate of use of *drug stimulants* are given in Table 15, based on only reported users of drug stimulants. The most frequent rate of use of drug stimulants is on a less often than monthly basis (46.4%). (The majority of the respondents had reported that they never use drug stimulants.) There was an appreciable difference among Services in the reported average rate of use. Army users were far more likely to report daily use of the drug than were users in the other Services.

Results for the average schedule of use of *depressants* (sedatives/tranquilizers) appear in Table 16, based on only admitted users of this category of nontherapeutic drugs. The most frequently reported rate of use of depressant drugs is less often than monthly (37.6%). (It should be noted that the majority of the respondents reported that they never use depressant drugs.) There was a slight difference among Service samples. Army users were slightly more likely to report daily use of the drugs than users of the drugs in

Table 15

Average Rate of Use of Stimulant Drugs, by Service: Stimulant Drug Users Only
(Projected Percentage)

Frequency	Army	Navy	Marine Corps	Air Force	DoD
Every Day	11.6	3.8	2.8	5.9	8.6
Several Times a Week	17.2	10.5	13.2	9.0	14.6
Once a Week	19.3	10.1	13.7	9.2	15.9
Once a Month	14.2	11.4	17.7	16.6	14.5
Less Often Than Monthly	37.7	64.2	52.5	59.3	46.4

Table 16

Average Rate of Use of Depressant Drugs, by Service: Depressant Drug Users Only
(Projected Percentage)

Frequency	Army	Navy	Marine Corps	Air Force	DoD
Every Day	15.4	10.8	3.8	9.2	12.9
Several Times a Week	20.8	10.1	9.4	13.4	17.3
Once a Week	15.1	12.1	14.7	9.7	14.1
Once a Month	19.2	14.1	18.0	16.5	18.1
Less Often Than Monthly	29.5	53.0	54.2	51.1	37.6

Table 17

Average Rate of Use of Narcotics, by Service: Narcotic Drug Users Only
(Projected Percentage)

Frequency	Army	Navy	Marine Corps	Air Force	DoD
Every Day	26.0	13.9	8.0	11.7	21.3
Several Times a Week	23.9	14.4	15.8	9.3	20.4
Once a Week	13.8	14.6	12.8	9.7	13.4
Once a Month	11.3	9.3	17.3	21.2	12.7
Less Often Than Monthly	25.0	47.8	46.1	48.0	32.2

the other Services. Conversely, the majority of drug users in the other Services reported drug use less often than monthly, while the rate for Army men was about 29%.

Results for the use of *narcotic drugs* based only on reported users are given in Table 17. The majority of the respondents had reported that they never use the narcotic drugs. Among users, the most frequently reported rate of use is less often than monthly (32.2%), although 21.3% report daily use. There was a substantial difference among the Services; Army users were far more likely to report daily use of the drug than users in the other Services.

The fact that 21% of the admitted users report using narcotic drugs on a daily basis shows that frequent usage of opiates is fairly widespread in the Services, and the Army data suggest that a small segment of the enlisted population may have a serious drug problem.

In summary, substantial inter-Service differences exist in the frequency with which admitted drug users take drugs. A higher percentage of men in the Army reported daily drug use of each category of drug than did enlisted men in the other Services who reported using drugs.

These results show the same trend as previous findings on recent usage and frequency of usage of respective drugs in the 12-month period. The differences between the Services on any recent use, frequency of use, and schedule of use may be partially explained by analyses of the impact of geographical location on nontherapeutic drug use. These findings demonstrate that duty in Southeast Asia is positively correlated to recent use and average use. This phenomenon, involving presumably high drug exposure and other conditions conducive to drug experimentation and nontherapeutic drug use, affects more Army men than men in the other Armed Services, since the Army has assigned proportionately more men to Southeast Asia.

LOCATION AND PAY GRADE ANALYSES

The survey sample was designed to permit analysis of recent drug usage rates and average usage by pay-grade/location categories, for each Service. For each criterion, tables were generated for each of the five drug categories at each of the 17 Service-location categories with a control on pay-grade category for each table. The resulting detailed tables were provided separately for DoD/Service review, but certain findings merit presentation in summary form in this report.

Location Analyses

As previously noted, branch of Service was a major factor in the reported recent usage of drugs. Overall, the reported recent rates of nontherapeutic use of all five categories of drugs were higher for the Army and Marine Corps than for the Navy and Air Force. Location was also a factor in the differential use of drugs in the last 12 months. Table 18 expresses recent usage rate findings by location category.

For the Army, men in Vietnam reported the highest rate of recent nontherapeutic drug use and the highest rates of use of each category of drugs, with the exception of psychedelic drugs other than marijuana. The highest rate of recent use of drugs in this category was reported by Army personnel in Europe. (This category includes hashish as one type of psychedelic drug.)

Among Navy respondents, the highest rates of recent drug use were reported by men located in CONUS. This held for each of the five categories of drugs.

In the Air Force sample, recent drug use appeared to vary by location. Recent use of marijuana was frequently reported among men stationed in Vietnam (23.6%), Thailand (22.7%), and Taiwan (21.8%). Respondents in Taiwan also reported the highest rates of

Table 18

Use of Drugs at Any Time in the Last 12 Months, by Drug Category and Service Location: All Services
(Projected Percentage)

Service Location[a]	Marijuana	Other Psychedelic Drugs	Stimulants	Depressants	Narcotic Drugs
Army					
CONUS	41.3	28.4	28.9	21.5	20.1
Europe	40.2	33.0	23.0	14.0	13.3
Vietnam	50.9	30.8	31.9	25.1	28.5
Other Southeast Asia	42.0	23.2	24.7	18.1	17.6
Total Army	42.7	29.4	28.0	20.4	20.1
Navy					
CONUS	23.4	13.0	13.0	7.2	6.5
Europe	12.4	8.1	6.4	3.4	3.6
Southeast Asia	18.6	9.2	9.3	5.6	5.4
Total Navy	21.8	12.1	11.9	6.7	6.1
Air Force					
CONUS	15.8	8.4	7.3	4.7	4.4
Europe	12.6	8.5	5.0	3.0	1.8
Turkey	13.4	9.2	7.8	4.8	3.6
Vietnam	23.6	7.9	6.9	5.0	6.0
Thailand	22.7	7.7	8.1	4.1	3.4
Taiwan	21.8	8.6	11.3	7.0	8.0
Other Southeast Asia	16.9	6.5	6.7	4.3	3.7
Total USAF	16.3	8.3	7.1	4.6	4.2
Marine Corps					
CONUS	37.6	22.9	24.2	15.0	13.6
Okinawa	41.8	24.3	24.0	14.2	13.9
Other Southeast Asia	37.5	21.7	23.1	13.6	12.4
Total USMC	38.0	22.9	24.1	14.8	13.6

[a]Location is defined by current Permanent Duty Station.

recent use of stimulants (11.3%), depressants (7.0%), and narcotic drugs (8.0%). The highest rate of use of psychedelic drugs other than marijuana was reported by Air Force personnel in Turkey (9.2%).

Among Marine Corps respondents, the rates of recent drug use showed minimal variability across the broad location categories of CONUS, Okinawa, and other Southeast Asian countries. Slightly higher recent usage rates for narcotics, marijuana, and other psychedelic drugs were reported by men on Okinawa, and slightly higher recent usage rates for drug stimulants and depressants were reported by Marines in CONUS. However, there was less variability in drug usage rates by location among Marine Corps respondents than was reported by men in the other Services.

The highest rate of recent narcotics use found in the survey was reported by Army men stationed in Vietnam (28.5%). For this reason, many of the tables in this report which concern correlates of narcotics use employ Army-Vietnam respondents as the basis for the analyses.

One unanticipated finding of the survey was the relatively high recent drug usage rates reported by Army CONUS enlisted men. This phenomenon of high drug usage among Army respondents in general, and among Army CONUS respondents in particular, was also reflected in the findings on average usage schedule by location. Table 19 contains reported daily drug usage rate findings by location category for each Service.

Respondents in the Army reported the highest daily usage rates, for each category of drugs. The rates ranged from 3% for stimulants and depressants, to 5% for narcotic

Table 19

Daily Use of Drugs, by Drug Category and Service Location: All Services
(Projected Percentage)

Service Location	Marijuana	Other Psychedelic Drugs	Stimulants	Depressants	Narcotic Drugs
Army					
CONUS	6.6	4.0	3.6	4.1	5.4
Europe	7.9	6.9	1.5	1.3	1.6
Vietnam	13.8	3.5	3.9	2.7	9.2
Other Southeast Asia	7.1	3.2	1.4	2.3	3.1
Total Army	8.1	4.4	3.1	3.2	5.2
Navy					
CONUS	2.2	0.4	0.4	0.9	0.9
Europe	1.1	1.0	0.5	0.3	0.5
Pacific	1.6	0.5	0.6	0.5	0.4
Total Navy	2.0	0.5	0.5	0.8	0.8
Air Force					
CONUS	1.0	0.5	0.5	0.5	0.5
Europe	0.9	0.3	0.1	0.1	0.1
Turkey	1.3	1.1	0.7	0.5	0.5
Vietnam	2.2	0.7	0.3	0.2	0.6
Thailand	2.3	0.2	0.4	0.2	0.2
Taiwan	2.7	0.4	0.5	0.5	1.0
Other Southeast Asia	1.2	0.1	0.3	0.1	0.5
Total USAF	1.1	0.5	0.4	0.4	0.5
Marine Corps					
CONUS	2.3	0.5	0.7	0.6	1.1
Okinawa	3.4	0.3	0.5	0.4	0.6
Other Southeast Asia	2.9	0.9	0.6	0.1	0.9
Total USMC	2.4	0.5	0.7	0.6	1.1

drugs, up to 8% for marijuana. The daily use of psychedelic drugs other than marijuana was reported by about 4%. Among Army enlisted personnel, reported daily drug usage varied by location category. The highest daily usage rates for marijuana and narcotics were reported by Army men in Vietnam. The highest daily rate of use of psychedelic drugs other than marijuana was reported by Army men in Europe.

For men in the Navy, Marine Corps, and Air Force, daily usage rates of each category of drug seldom exceeded 1% to 2%. Indeed, if marijuana usage is excluded, daily reported use of the other categories of nontherapeutic drugs, including narcotics, is 1% or less, regardless of location for men in the Navy, Marine Corps, and Air Force.

In summary, the use of drugs at some time in the past year varies extensively depending on the type of drug. Marijuana usage is reported by far more Servicemen than is use of other categories of drugs. While the use of nontherapeutic drugs at some time in the past year is substantial, report of daily use of the drugs is minimal, with the exception of reported daily usage rates in the Army. The Army emerges as the Service

Table 20

Daily Use of Drugs, by Drug Category and Pay Grade, and by Service: CONUS Only

(Projected Percentage)

Service Pay Grade	Marijuana	Other Psychedelic Drugs	Stimulants	Depressants	Narcotic Drugs
Army CONUS					
E1-3	10.9	7.2	6.0	6.9	8.6
E4	3.9	1.8	1.6	1.6	3.6
E5	4.1	1.8	2.3	3.5	4.1
E6	2.3	0.9	1.1	0.7	0.7
E7-9	0.3	0.5	1.0	0.8	1.5
Navy CONUS					
E1-3	3.8	0.7	0.9	1.4	1.4
E4	2.5	0.1	0.3	0.8	0.6
E5	1.1	0.6	0.4	0.4	0.7
E6	--	0.3	--	0.3	0.6
E7-9	0.4	--	--	0.9	0.4
Air Force CONUS					
E1-3	2.0	1.2	1.3	1.3	1.3
E4	1.0	0.5	0.2	0.2	0.2
E5	0.5	0.2	0.2	0.2	0.2
E6	--	--	--	0.2	0.3
E7-9	0.1	0.1	0.1	0.3	0.1
Marine Corps CONUS					
E1-3	3.5	1.0	1.1	0.6	1.9
E4	1.2	0.2	0.5	1.5	0.5
E5	0.8	--	--	--	0.2
E6	0.6	--	--	0.3	--
E7-9	0.2	--	0.2	--	--

with the greatest drug problem, insofar as high daily drug usage rates constitute a problem. Possible reasons for this finding include the effects of assignment to Vietnam.

Pay Grade Analyses

The relationship of pay grade category to drug usage was also studied. The criterion used was reported daily use of each of the five categories of drugs. Results are presented for men in the CONUS location of each Service (Table 20). In general, Table 20 indicates an inverse relationship between the daily use of drugs and pay grade. Highest rates of reported daily drug use were found among those enlisted men in the lowest pay grade categories.

Effects were especially pronounced for the reported daily use of marijuana. In the Army, the highest rates of daily use of marijuana were observed among E1-3s (10.9%), while the lowest rates were observed among E7-9s (.3%). This inverse relationship was also noted for the daily use of other categories of drugs among Army personnel. For the other three services, these relationships were substantially the same as those observed in the Army. The relationships, however, were less pronounced in the other Services, and in general there were lower daily drug rates reported.

OTHER USAGE ANALYSES

Drug Use in Combination With Alcohol

Respondents were also asked whether they had ever used drugs in combination with alcohol. Responses have been summarized in Table 21 to show usage rates by Service and DoD total. In total, 18.7% of the sample report using a drug in combination with the use of alcohol. The rate varies between Services. The highest reported rate occurs for the Marine Corps at 26.1%, the lowest for the Air Force at 11.3%.

Table 21

Use of Drugs in Combination With Alcohol, by Service: All Services
(Projected Percentage)

Use	Army	Navy	Marine Corps	Air Force	DoD
Yes	24.5	15.1	26.1	11.3	18.7
No	75.5	84.9	73.9	88.7	81.3

Multiple-Drug Usage

Survey data may be analyzed to determine the extent to which men have used more than one type of drug. For this report, nontherapeutic poly-drug usage among Army men in Europe was analyzed. The criterion of reported use of each category of drug in the last 12 months was employed. For men who reported the use of marijuana in the last year, Table 22 indicates the percent who reported recent use of each of the other categories of drugs. Almost three-quarters of those who admitted recent use of marijuana also reported the recent use of other psychedelic drugs. Half of the recent marijuana users reported the use of drug stimulants. Approximately 30% of recent marijuana users also reported the recent use of depressants and narcotic drugs.

Table 22

Use of Multiple Drugs:
Army Men in Europe Who Use Marijuana
(Projected Percentage)

Drug Category	Marijuana Users Who Also Use Other Drugs	Users of the Drug Who Also Use Marijuana
Other Psychedelic Drugs	74.4	90.7
Stimulants	50.8	88.6
Depressants	31.5	90.2
Narcotics	30.4	91.6

The importance of this observation is shown in the data on the percent of users of each drug represented as poly-drug users. Approximately 90% of the recent users of each of the other categories of drugs are composed of the marijuana users who also reported recent use of other types of drugs. The fact that most marijuana users are *not* users of narcotics (or depressants) should also be noted.

It may prove instructive to examine poly-drug usage at other Service locations. Tentative evidence suggests that the high rate of use of psychedelic drugs other than marijuana among users of marijuana in USAREUR may be a phenomenon of that location—that is, that a lower rate would be found in CONUS.

The analysis of poly-drug usage also has ramifications for the analysis of demographic correlates of nontherapeutic drug utilization. In the next section, first-order relationships of selected demographic items to narcotic drug use are explored to introduce this important topic. However, the performance of poly-drug analyses could be useful as an initial phase in a more sophisticated, multivariate analysis of demographic relationships in drug usage.

DEMOGRAPHIC CORRELATES OF DRUG USE

Another major objective of the research was the identification of demographic correlates of nontherapeutic drug use. Twelve demographic variables were used in these analyses. Responses to the demographic items were related to the average schedule of use of each category of drugs. For this report, results are presented that indicate the relationships of the various demographic items to the average use of narcotics. Results of these analyses are given for Army personnel, the Service with the highest rate of usage of this category of drugs in the last 12 months.

The demographic variables analyzed were the following:

(1) Level of education at entry
(2) Geographic location at entry (Home of Origin)
(3) Race
(4) Current age
(5) Current marital status
(6) Recent duty in Southeast Asia/Europe (For CONUS-based personnel only)
(7) Total time in service
(8) Length of time at current duty station
(9) Primary military occupational skill, expressed in Department of Defense one digit skill categories

(10) Current enlistment status
(11) Remaining obligated service (for men who do not plan to reenlist)
(12) Expected geographic location after service (for short-timers only)

Tables 23 through 34 show the relationship of each of the above variables to narcotics use among Army personnel.

The level of education at entry was related to the schedule of use of narcotic drugs among Army personnel in a complex way. Results appear in Table 23. The relationship is curvilinear. There was a trend toward more frequent use of narcotic drugs among men with less than a high school education at entry, or among men who possessed a post-graduate degree at entry into the Army. However, it is important to note that these two extreme categories of educational attainment each include relatively small segments of the total Army enlisted population. The majority of daily users of narcotics possessed high school or college training upon entry into the Service.

Table 23

Average Rate of Use of Narcotics, by Educational Level: Army
(Projected Percentage)

Education	Every Day	Less Often Than Daily	Never Use
No High School	20.1	21.6	58.3
Some High School	7.3	23.0	69.6
High School Graduate	4.2	11.8	83.9
Less Than Two Years of College	4.2	15.4	80.4
Two or More Years of College	3.7	14.1	82.2
College Graduate (BA, BS, or Equivalent)	2.4	11.4	86.3
Graduate Study but No Graduate Degree	7.7	8.8	83.5
Graduate Degree(s)	17.3	15.6	67.1

The geographic area (region of origin) from which men entered the Service was related to the schedule of use of narcotic drugs among Army personnel. Results of this analysis are given in Table 24. There was a tendency toward more frequent use of narcotic drugs among men from the New England states. Conversely, infrequent use of narcotics was reported by men who entered the Service from the Southern states.

Race, expressed in the three categories of White/Black/Other, was strongly related to the average schedule of usage of narcotic drugs. Table 25 indicates the findings for this analysis. There was a trend toward more frequent use of narcotics reported by Blacks and members of races other than Black or White. Thus, about 9% of both categories report daily narcotics use. Conversely, there was a less frequent rate of drug use reported among Whites, with 83% reporting no use of these drugs. However, Whites compose the majority of enlisted men, and constitute the majority of daily users of these drugs.

Nontherapeutic drug use is often classified as a phenomenon of youth (Blum, *et al.*, 1970). The relationship of current age to the average schedule of use of narcotic drugs is given in Table 26. There was a strong, negative relationship between age and the reported use of narcotics among Army personnel. For example, enlisted men aged 17 or 18 years were far more likely to report the daily use of narcotics (19.7%) than were men aged 20

Table 24

Average Rate of Use of Narcotics, by Region of Origin: Army
(Projected Percentage)

Region[a]	Every Day	Less Often Than Daily	Never Use
New England	11.2	25.3	63.5
North Atlantic	7.8	17.0	75.3
Middle Atlantic	8.5	19.5	72.0
South Atlantic	3.4	11.1	85.5
South	2.8	11.4	85.8
Southwest	3.9	10.3	85.9
Great Lakes	3.0	13.4	83.7
Great Plains	3.2	11.0	85.8
Mountains	4.6	13.3	82.1
Pacific	4.4	16.5	79.1
All Other Locations[b]	7.4	16.9	75.7

[a]The following regional definitions apply:
New England - Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
North Atlantic - New Jersey, New York, Pennsylvania
Middle Atlantic - Delaware, Maryland, Virginia, Washington, D.C., West Virginia
South Atlantic - Florida, Georgia, North Carolina, South Carolina
South - Alabama, Kentucky, Mississippi, Tennessee
Southwest - Arkansas, Louisiana, Oklahoma, Texas
Great Lakes - Illinois, Indiana, Michigan, Ohio, Wisconsin
Great Plains - Iowa, Kansas, Minnesota, Missouri, Nebraska, North and South Dakota
Mountain - Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming
Pacific - California, Oregon, Washington State
[b]Includes Alaska, Hawaii, The Philippines, and overseas areas.

Table 25

Average Rate of Use of Narcotics, by Race: Army
(Projected Percentage)

Race	Every Day	Less Often Than Daily	Never Use
White	4.0	13.4	82.7
Black	8.9	16.2	75.0
Other	9.8	27.4	62.8

to 21 years (between 5% and 6%). Men over 28 years of age reported virtually no use of narcotics. Although the younger groups report the highest daily narcotic usage rates, they do not contribute the majority of daily narcotic drug users. Because the majority of Army enlisted personnel are between 20 and 23 years of age, these year groups contribute the majority of daily users of narcotic drugs.

The relationship between current marital status and the average use of narcotic drugs is given in Table 27. There was a relationship between marital status and the daily use of

Table 26

Average Rate of Use of Narcotics, by Current Age: Army
(Projected Percentage)

Age	Every Day	Less Often Than Daily	Never Use
17 Years or Under	24.2	34.4	41.4
18 Years	17.4	30.7	51.8
19 Years	9.2	28.0	62.8
20 Years	5.0	18.8	76.2
21 Years	6.4	16.6	77.1
22 - 23 Years	3.2	13.1	83.6
24 - 25 Years	1.7	7.6	90.8
26 - 27 Years	1.3	6.1	92.6
28 - 29 Years	0.7	2.8	96.6
30 - 34 Years	0.6	1.8	97.5
35 - 39 Years	0.5	0.5	99.0
40 Years or Over	0.2	2.8	96.9

Table 27

Average Rate of Use of Narcotics, by Marital Status: Army
(Projected Percentage)

Marital Status	Every Day	Less Often Than Daily	Never Use
Married	3.2	8.5	88.3
Single	6.8	19.6	73.6

narcotics among Army enlisted men. Men who are single were more likely to report the daily use of narcotic drugs (6.8%) than men who were married (3.2%).

The relationship between average use of narcotic drugs and duty in Europe and/or Southeast Asia in the last two years was explored. Urinalysis data suggest that opiates are more frequently used by men stationed in Southeast Asia (Jaffee, 1971), as opposed to CONUS (Williams, 1971) or Europe (Irish, 1971). This survey explored the relationship of recent duty in Southeast Asia and/or Europe to the use of narcotic drugs among Army enlisted men currently stationed in CONUS. Table 28 contains the findings.

There was a positive relationship between recent duty in Southeast Asia and the daily use of narcotics by men in CONUS. There was also a positive relationship between daily narcotic drug use and recent duty in Europe. Daily use of narcotics was particularly related to service in both Europe and Southeast Asia in the past two years. Daily use of narcotic drugs was lowest for men in CONUS who had not served in either Europe or Southeast Asia in the last two years.

The relationship between average use of narcotics and total time in service was studied. There was an inverse relationship between drug use and length of service. The results are given in Table 29. Men with the least amount of service, under three months,

Table 28

Average Rate of Use of Narcotics, by Recent Overseas Duty: Army—CONUS
(Projected Percentage)

Overseas Duty	Every Day	Less Often Than Daily	Never Use
Southeast Asia	11.7	12.8	75.6
Europe	7.7	29.1	63.2
Both Europe and Southeast Asia	16.7	34.1	49.2
None of These Areas	2.1	11.7	86.2

Table 29

Average Rate of Use of Narcotics, by Total Time in Service: Army
(Projected Percentage)

Total Time in Service	Every Day	Less Often Than Daily	Never Use
Less Than 3 Months	17.1	35.5	47.4
3 - 6 Months	10.0	24.3	65.7
7 - 9 Months	6.0	20.0	74.0
10 - 11 Months	8.4	16.2	75.3
1 Year	3.8	12.6	83.5
2 Years	5.8	17.7	76.5
3 Years	6.1	13.4	80.4
4 - 5 Years	2.3	13.7	84.1
6 - 8 Years	1.4	5.2	93.3
9 Years or More	0.6	2.5	97.0

were more likely to report daily use of narcotics than men with more total time in Service. However, the majority of daily users of narcotics have between one and three years of service, due to the time-in-service distribution of the Army which makes this group numerically predominant.

The relationship between average narcotics use and the length of time the respondent has been assigned to his current duty station was investigated. There was an inverse relationship between this measure of mobility and the average use of narcotic drugs. Results are shown in Table 30. Men with less than one month at their current duty station reported the highest daily narcotics usage rate, almost 22%. Men with between 1 and 12 months at their current station were more likely to report the daily use of narcotic drugs than were men with over 13 months' service at their current duty station. This finding may reflect the recent overseas assignment relationship previously noted.

The relationship of military occupational skill to the average use of narcotics was studied for Army enlisted personnel. The following convention was applied: The first three digits of PMOS were reported, for instance, 11B. The first two digits were then

Table 30

Average Rate of Use of Narcotics, by Length of Time at Current Duty Station: Army
(Projected Percentage)

Time at Current Duty Station	Every Day	Less Often Than Daily	Never Use
Less Than 1 Month	21.8	14.7	63.6
1 - 3 Months	4.7	23.2	72.1
4 - 6 Months	5.1	15.0	79.9
7 - 9 Months	5.4	14.6	80.1
10 - 12 Months	5.7	13.1	81.1
13 - 15 Months	2.0	11.2	86.7
24 Months	1.9	6.2	91.9

converted to the one-digit DoD occupation code.[1] The analysis indicated an apparent relationship between military occupational skill and the average use of narcotics in this Army sample. Table 31 contains the results.

Table 31

Average Rate of Use of Narcotics, by Department of Defense One-Digit Occupational Area Codes: Army
(Projected Percentage)

Job Code	Every Day	Less Often Than Daily	Never Use
0 Infantry, Gun Crews	5.8	19.2	75.1
1 Electronic Equipment Repairman	5.9	16.0	78.1
2 Communications and Intelligence Specialist	4.0	8.4	87.6
3 Medical and Dental Specialist	1.3	12.7	86.0
4 Other Technical and Allied Specialist	11.0	9.4	79.5
5 Administrative Specialist and Clerk	2.3	9.8	87.9
6 Electrical/Mechanical Equipment Repairman	4.6	13.0	82.3
7 Craftsman	2.2	11.4	86.3
8 Service and Supply Handlers	6.1	13.8	80.0
Unidentified Codes and Blanks	9.7	20.0	70.3

[1] See the Department of Defense *Occupational Conversion Table*, March 1971.

Daily use of narcotic drugs was most frequently reported by men in DoD skill group 4, other technical and allied specialists (11.0%). The lowest daily rate was reported by men in DoD skill group 3, medical and dental specialists (1.3%). Daily usage was also high among men who did not indicate their current PMOS.

Current enlistment status was represented as follows: (a) draftee, (b) reservist, (c) regular, first enlistment, and (d) regular, second or later enlistment, that is, careerists. The relationship between current enlistment status and the average use of narcotic drugs was investigated for the Army sample. Findings appear in Table 32.

Table 32

Average Rate of Use of Narcotics, by Current Enlistment Status: Army
(Projected Percentage)

Enlistment Status	Every Day	Less Often Than Daily	Never Use
Draftee (Did Not Enlist)	5.7	16.8	77.5
Reservist	23.1	21.7	55.2
Regular (First Enlistment)	5.4	17.4	77.2
Regular (Second or Later Enlistment)	2.5	8.1	89.4

There was an appreciable relationship between current enlistment status and the average use of narcotic drugs. The highest daily rate of narcotics use (23% daily use) was reported by Reservists, a very small percentage of the Army sample. Draftees were no more likely to report the daily use of narcotic drugs than were Regular Army men in their first term of enlistment (about 5%). The lowest rate of daily use of narcotics was reported by careerists in this Army sample (under 3%).

The relationship of narcotics use to the extent of remaining obligated service was studied. Each respondent was first asked if he planned to remain in the service when his present term of enlistment expired. The term of remaining obligated service was determined for those personnel who responded that they would *not* reenlist. The relationship of term of remaining obligated service to the average use of narcotic drugs is given in Table 33.

Table 33

Average Rate of Use of Narcotics, by Remaining Obligated Service: Army Personnel Not Planning to Reenlist
(Projected Percentage)

Remaining Obligated Service	Every Day	Less Often Than Daily	Never Use
1 - 6 Months	7.7	21.9	70.4
7 - 12 Months	4.9	15.9	79.2
13 - 24 Months	3.9	14.2	81.9
25 - 36 Months	5.1	15.6	79.4
37 or More Months	9.7	15.3	75.0
Indefinite	1.7	9.2	89.1

There is a substantial, but complex, relationship between the average use of narcotic drugs and the extent of remaining obligated Army service; men with more than three years to go or with six months or less of remaining service were more likely to report the use of narcotics daily or several times a week than men with between 7 and 36 months of remaining service.

The relationship of average use of narcotics to the anticipated civilian (post-Service) location was explored, for men about to leave the Service. Each respondent was asked to indicate where he planned to live after leaving the Service. Responses to this question were related to responses to the question of the average use of narcotic drugs, for only those Army enlisted men who indicated that they would *not* reenlist at the conclusion of their current term of enlistment. Results are given in Table 34.

Table 34

Average Rate of Use of Narcotic Drugs, by Expected Location After Service: Short-Termers Only

(Projected Percentage)

Expected Location[a]	Every Day	Less Often Than Daily	Never Use
New England	14.5	42.2	43.3
North Atlantic	15.8	42.4	41.8
Middle Atlantic	5.9	41.4	52.6
South Atlantic	18.6	30.8	50.6
South	13.9	18.4	67.7
Southwest	11.7	24.7	63.5
Great Lakes	11.7	30.2	58.1
Great Plains	10.3	28.9	60.8
Mountain	17.6	38.9	43.5
Pacific	19.2	47.1	33.6
All Other Locations	13.1	38.6	48.3
Don't Know	24.7	50.0	25.3

[a]Regional definitions given in Table 24 apply.

There was a complex relationship between the average use of narcotics and expected post-Service location. In terms of the continental United States, the highest daily use of narcotics was reported by men who expect to live in the Pacific region. The lowest rate of daily use of narcotic drugs was reported by men who expect to live in the Middle Atlantic region. In terms of projected numbers, more daily narcotics users expect to live in the Pacific States, followed by the North Atlantic, and Great Lakes regions. Daily usage rates were also high among men who did not know where they would live after leaving the Service.

In summary, the higher daily users of narcotics drugs among Army personnel possessed the following interrelated demographic correlates: (a) age (17-18 years), (b) marital status (single), and (c) total time in Service (3 months or less). It will be recalled that rank, another age-related variable, was earlier shown to be related to daily narcotics use. Other demographic variables related to the criterion were (a) enlistment status (reservist), (b) race (non-white), and (c) education (either uneducated or very highly educated). Recent duty overseas, and possession of DoD group 4 skills also was related to daily narcotics use in this Army population. High mobility (one month or less

at current duty station) and a New England home of origin also appeared related to the reported daily use of narcotics drugs.

The following section on origins of drug use reflects the relationship between civilian (pre-Service) drug use and recent use in the Armed Forces.

ORIGINS OF DRUG USE

The survey explored selected circumstances involving the initial use of drugs. Each respondent was asked at what age he first used illegal drugs. He was also asked to note the first type of illegal drug used. Responses to these two items were cross tabulated. Table 35 provided results of this analysis. Percentages are based upon type of drug first reported used, at each age group. The base consists of drug users only, selected from the total DoD sample.

Table 35

First Drug Used at Each Age Group:
All Services—Men Who Have Ever Used Drugs
(Projected Percentage)

Drug	Age Group (years)				
	17 or younger	18 - 19	20 - 21	22 - 23	24 or older
Marijuana	69.0	79.2	83.7	80.6	70.0
Psychedelics	12.9	10.2	8.0	10.1	14.2
Stimulants	12.0	8.8	6.6	4.8	9.6
Depressants	3.6	1.5	0.8	2.3	4.4
Narcotics	2.5	0.3	0.9	2.1	1.8

Marijuana is the illegal drug used first, regardless of age of initial drug use. Among drug users, 69% of the men who first used drugs at age 17 reported the drug used first was marijuana. The same findings appear for men who were 24 years or older when they first used a drug. Particularly high rates of marijuana use were reported by men who first used an illegal drug between the ages of 18 to 23.

Respondents were also asked to specify one reason for first use of a drug. A series of structured alternatives were presented for their consideration. Responses to this item were listed by the category of drug first used, generating a distribution of reasons for first use. Results, for admitted drug users only, appear in Table 36. The most frequent reason cited for first use of marijuana was curiosity (65.1%). Men who first used heroin also gave curiosity most frequently (22.0%), but 32.2% of heroin users left this item blank. Small percentages of respondents claimed to have been "talked into" the use of drugs, although friends' use of drugs was cited as a major reason by approximately 10% to 13%.

Each of the respondents was asked to indicate the extent of marijuana use prior to entering the Service. The response to this item was then related to the reported frequency of use of marijuana in the last 12 months. Results are given in Table 37. In total, 21.2% of the sample reported the use of marijuana at some time prior to entry into the Service. This compares with a recent usage rate while in Service of 29.9% overall.

Most men who reported no use of marijuana prior to Service also reported no in-Service use of the drug (84.6%). Conversely, a substantial percentage of men who

Table 36

Reasons For First Drug Use:
All Services—Men Who Have Ever Used Drugs
(Projected Percentage)

Reason	Marijuana	Psychedelics	Stimulants	Depressants	Narcotics
Friends Used Them	10.9	11.4	9.2	12.5	10.0
Curiosity	65.1	50.0	38.7	44.3	22.0
Personal Problems	3.8	10.7	9.0	10.4	10.8
Boredom	3.5	8.2	6.9	9.1	7.4
I Was Talked Into It	3.1	3.7	3.2	4.8	1.3
Combat Stress	2.1	1.2	3.5	2.3	5.0
Some Other Reason	10.0	10.7	22.0	13.6	11.3
Not Applicable - Do Not Use These Drugs/Blanks	1.5	4.0	7.4	3.0	32.2

Table 37

Use of Marijuana in the Last 12 Months, by
Use Before Entering Service: All Services
(Projected Percentage)

Recent Use	No Use	Once or Several Times	Used it Sometimes, Not Frequently	Used Quite Frequently
Yes	15.4	72.5	90.4	94.6
No	84.6	27.5	9.6	5.4

reported only casual use of marijuana before entering the Service reported use in the last 12 months (72.5%). Of men reporting frequent pre-Service use of marijuana, only 5% reported no use of the drug in the past 12 months.

Respondents were also asked about frequency of use of heroin prior to entering the Service. Responses to this item were related to the reported frequency of use of any type of narcotic drugs in the last year. Results are shown for the total DoD sample in Table 38. Overall, approximately 5% of the sample reported the use of heroin before entering the Service. This compares with a projected recent usage rate while in Service for any type of narcotic drug of 11.7%.

There was a substantial relationship between the use of heroin before the Service and use of narcotic drugs in the last 12 months, presumably after entering the Service. Over 91% of the men who had not used heroin before Service also had not used narcotic drugs in the last 12 months. However, the majority of men (over 70%) who reported use of heroin before Service also reported use of some type of narcotic drugs in the last year.

Table 38

Use of Heroin in the Last 12 Months, by Use Before Entering Service: All Services
(Projected Percentage)

Recent Use	No Use	Once or Several Times	Used it Sometimes, Not Frequently	Used Quite Frequently
Yes	8.5	73.9	75.8	74.9
No	91.5	26.1	24.2	25.1

DRUG ACQUISITION/SOURCES OF SUPPLY

The analysis of paired survey items provides insights into *drug delivery systems*, that is, sources of drug availability and methods of drug acquisition. For example, each person who reported the use of a narcotic drug was asked to indicate the following two circumstances of his *last* drug use:

(1) The manner of drug acquisition.
(2) The source of the drug.

The questions were applied to the last use of six types of narcotic drugs: heroin, opium, methadone, codeine, morphine, and other narcotic drugs.[1]

For this report, an analysis was made of the details of narcotic acquisition among Army enlisted personnel stationed in Vietnam. Table 39 indicates the percentage reporting last use of each particular drug. Because the number of cases, after being weighted, was small for drugs other than heroin and opium, only heroin and opium were analyzed to determine the details of drug acquisition. Responses to the two drug acquisition items were cross tabulated.[2]

Table 39

Last Narcotic Drug Used: Army—Vietnam

Type of Drug	Projected Percent
Heroin	15.3
Opium	4.7
Methadone	1.4
Codeine	0.9
Morphine	0.5
Other Narcotic Drugs	1.2
No Use	75.8

[1] Analogous paired questions were asked for each drug in the remaining four categories of non-opiate drugs.

[2] Data have been edited to delete blanks and response inconsistencies, that is, men who claimed they last used heroin, but in subsequent questions about acquisition then denied ever using the drug, or left either of the questions blank.

Heroin Acquisition

Table 40 contains details of acquisition of heroin among Army enlisted men in Vietnam. Heroin was most frequently reported to have been purchased (63%) when last acquired. The most frequent source of heroin was a fellow serviceman (49.8%). Among men who last purchased the drug, the greatest number (47.2%) bought it from a foreign national, the second most frequent source was a fellow serviceman (39.6%).

Table 40

Heroin Acquisition: Army–Vietnam, Users Only
(Projected Percentage)

Source	Manner of Acquisition			Total
	Free	Bought	Other	
U.S. Civilian	12.2	10.5	4.5	10.8
Foreign National	7.7	47.2	20.6	33.1
Medic	10.7	2.7	27.1	6.3
Serviceman	69.4	39.6	47.9	49.8

About one-third of the men reported last obtaining heroin free. Among these men, 69.4% gave a fellow serviceman as the source.

Opium Acquisition

Details of the reported last acquisition of opium by Army users in Vietnam are given in Table 41. Opium was frequently reported obtained free (48.6%). Fellow serviceman was the source most frequently cited by men who last obtained opium free (69.5%). The source of opium most frequently cited among Army men who last purchased the drug was foreign nationals (61.6%).

Table 41

Opium Acquisition: Army–Vietnam, Users Only
(Projected Percentage)

Source	Manner of Acquisition			Total
	Free	Bought	Other	
U.S. Civilian	13.3	8.1	12.0	11.0
Foreigner	13.6	61.6	36.3	35.9
Medic	3.5	7.0	9.3	5.5
Serviceman	69.5	23.3	42.4	47.5

In summary, narcotic drug acquisition by Army enlisted men in Vietnam typically involves purchase of the drug. The major sources appear to be foreign nationals and servicemen. The foreign national tends to be a seller of the drugs, while the serviceman tends to provide the drugs to his peers free of charge. For heroin, the serviceman appears to function both as a seller and as a free source of the drug.

RECOGNITION OF DRUG USE AND AVAILABILITY

A critical question in drug control is the extent to which drug use is recognized. This question assumes particular relevance for personnel in supervisory positions (NCOs and other senior enlisted personnel). To control drug abuse, such personnel must be aware of the availability of drugs at their installation.

An estimate of drug availability was obtained by asking respondents whether each category of drugs was for sale where they were stationed. Responses to these items were cross tabulated against an index of the recent usage of drugs. The index included a differentiation based on rank. Controls were imposed further by Service location.

Selected tables dealing with the availability of narcotic drugs are included in this report. Analyses are presented for Army personnel in Vietnam, and for Army representatives in CONUS. Tables 42 and 43 show the results for Army:Vietnam and Army: CONUS.

Findings on the awareness of narcotic drug availability among Army enlisted men in Vietnam are given in Table 42. Overall, almost 56% of the Army, Vietnam sample reported the availability of narcotic drugs.

Table 42

Knowledge of Narcotic Drug Availability Among Recent Users and Non-Users of Narcotics Army—Vietnam
(Projected Percentage)

Drug Availability	E1-5		E6-9	
	Users	Non-Users	Users	Non-Users
Available[a]	84.6	43.3	81.1	48.9
Not Available	4.6	7.3	6.3	2.4
Don't Know	10.8	49.4	12.6	48.7

[a]Responses indicating drug availability on base, on ship, in town only, and both on base and in town.

There was a substantial relationship between narcotic drug usage and the awareness of narcotic drug availability among Army enlisted personnel in Vietnam. Men who reported the recent use of narcotic drugs were far more likely to be aware of the availability of narcotic drugs than were non-users. The relationship was independent of pay grade.

Narcotic Drug Availability in CONUS

Findings on the awareness of narcotic drug availability among Army enlisted men in CONUS are given in Table 43. Over all, approximately 43% of the Army:CONUS sample reported narcotic drug availability. There was a relationship between narcotic drug usage and the awareness of narcotic drug availability among Army enlisted personnel stationed in CONUS. Men who were admitted recent users of narcotic drugs were more likely to be aware of the availability of narcotic drugs than were non-users. Pay grade did not appear to be related to knowledge of drug availability.

It is interesting to compare estimates of narcotic drug availability in CONUS among admitted recent users of the drugs in the E1-5 pay grades across Services. The following rates of availability were reported by recent users: Army:CONUS, 81.0%; Navy:CONUS,

Table 43

Knowledge of Narcotic Drug Availability Among Recent Users and Non-Users of Narcotics: Army—CONUS
(Projected Percentage)

Drug Availability	E1-5		E6-9	
	Users	Non-Users	Users	Non-Users
Available[a]	81.0	35.0	75.1	29.5
Not Available	4.0	6.0	7.4	3.7
Don't Know	15.0	59.0	17.5	66.8

[a]Drug availability was defined by combining responses indicating drug availability on base, on ship, in town, or both on base and in town.

76.5%; Marine Corps:CONUS, 69.9%; and Air Force:CONUS, 77.4%. Among narcotic users, then, there was high agreement regarding the availability of narcotic drugs.

Perhaps equally interesting was the finding for senior NCOs, that is, men in the E6-9 pay grades, who are predominately non-users of narcotic drugs. Men in this supervisory status were generally not aware of the availability of narcotic drugs in their area. Awareness among members of this E6-9 non-user group of narcotic drug availability ranged from a low of 12.7% known availability (Air Force) to a high of only 29.5% known availability (Army). Very few members of the E6-9 non-user subgroups indicated that narcotic drugs were not available.[1] Responses indicated that the question was interpreted as simply one of awareness of the availability of the drug.

Comparison of Drug Use and Observation

Further information on the recognition of drug use was obtained from two additional items which sought to determine whether the respondent had ever seen anyone use marijuana or any drugs other than marijuana while on duty.

In Table 44 the percent in each Service who had ever used marijuana on duty was compared to the percent who ever saw it used on duty. For each Service, the extent of reported use of marijuana on duty was much less than the reported rate of observation of usage on duty. The largest discrepancy was noted for the Army where 45.4% reported observing the use of the drug on duty, but only 16.1% reported using marijuana on duty.

Table 44

Use of Marijuana on Duty Compared to Observed Use of Marijuana on Duty, by Service: All Services
(Projected Percentage)

Service	Ever Used	Seen Used
Army	16.1	45.4
Navy	6.6	20.3
Marine Corps	13.0	38.6
Air Force	3.1	12.3

[1]The highest rate of unavailability of narcotic drugs was reported by recent narcotic users in the Navy: CONUS. About 9% of these men claimed the drugs were not available.

An analogous comparison was made for the use of drugs other than marijuana (Table 45). For each Service, the rate of observation of drug use on duty exceeded the reported use on duty. The largest discrepancy again occurred for the Army; 37.1% reported observation, but only 11.6% indicated use on duty of drugs other than marijuana.

Table 45

Use of Drugs Other Than Marijuana on Duty Compared to Observed Use on Duty, by Service: All Services

(Projected Percentage)

Service	Ever Used	Seen Used
Army	11.6	37.1
Navy	5.2	15.0
Marine Corps	12.1	31.8
Air Force	2.6	8.5

The discrepancy between the rates of drug use and the observation of drug use is noteworthy. The high rate of observation of drug use may simply reflect the fact that many men observed the behavior of a few men. On the other hand, it is possible that the use of drugs on duty was under-reported by respondents not wishing to admit this behavior.

SELECTED JOB PERFORMANCE TOPICS AND OTHER CONSIDERATIONS

Several items were used to investigate the relationship of drug use and military job performance. In one analysis, the extent of use of marijuana on duty at any time was assessed against the current military occupational skill of the respondent. Each respondent was categorized according to DoD one-digit military occupational skills group. Membership in these categories was then cross-tabulated with responses to the item on the use of marijuana on duty. Results appear in Table 46.

In the total sample, 9.9% admitted to the use of marijuana on duty at some time. Overall, there was a slight relationship between skill group and the phenomenon of ever having used marijuana on duty. The highest rate of on-the-job use of marijuana (17.5%) was given by men in DoD group 0, that is, by men possessing combat arms skills. The lowest rate (4.8%) was reported by men in DoD group 2, that is, by men who possessed skills in the communications and intelligence specialist occupations.

Insight into attitudes toward the use of marijuana on duty can be gained through the analysis of another item. The respondent's opinion was asked as to whether a man who used marijuana on duty could be relied upon to perform his job properly. Responses to this question were cross-tabulated against reported use of marijuana on the job. Results are shown for the DoD total sample in Table 47.

Only a minority of the total sample reported that one could rely on a marijuana user to do his job (14%). Significant differences in attitude were observed as a function of on-the-job use of marijuana. Men who had used marijuana on duty were far more likely to state that a marijuana user could be depended upon to do his job properly (62%) than were men who had not used marijuana on duty (8%). However, almost half

Table 46

Use of Marijuana on Duty at Some Time, by Department of Defense One-Digit Occupational Area Codes: All Services
(Projected Percentage)

Job Code	Users	Non-Users
0 Infantry, Gun Crews	17.5	82.5
1 Electronic Equipment Repairman	7.4	92.6
2 Communications and Intelligence Specialist	4.8	95.2
3 Medical and Dental Specialist	6.9	93.1
4 Other Technical and Allied Specialist	8.4	91.6
5 Administrative Specialist and Clerk	10.3	89.7
6 Electrical/Mechanical Equipment Repairman	9.1	90.9
7 Craftsman	10.5	89.5
8 Service and Supply Handlers	9.9	90.1
Unidentified Codes and Blanks	9.6	90.4
Navy 000	7.5	92.5

Table 47

Opinion on Job Reliability of Marijuana Users Among Users and Non-Users of Marijuana: All Services
(Projected Percentage)

Can You Rely on a Marijuana User?	Users	Non-Users	Total
Yes	61.8	8.3	13.6
No	13.9	41.8	39.0
Don't Know	24.3	49.9	47.4

of the non-users reported that they did not know whether marijuana users could be relied upon to do their jobs properly.

Each of the respondents was asked how drug use affected his job performance. Responses to this item were cross-tabulated against the reported rate of use of narcotics. The 13% of Army personnel who admitted the use of narcotic drugs may be used for analysis to determine whether frequent use of narcotic drugs was related to subjective reports of performance deterioration on the job. Results are shown in Table 48. There was a negligible relationship between the frequent use of narcotics and the admission that drug use affected job performance. Most of those who admitted to the use of drugs on duty claimed it had no effect. There was a slight trend toward the reporting of either decline or improvement in job performance as a function of more frequent drug use. Daily narcotics users (24%) most frequently reported bad effects from drug use.

Each respondent was asked whether he had ever gotten into punitive trouble because of drugs while in the Service.[1] Responses to this item were cross-tabulated against the

[1] Response categories included getting into trouble because of (a) possession of a drug, (b) sale of a drug, (c) use of a drug, and (d) any combination of the above.

Table 48

Opinion on Effect of Drug Use on Job Performance in Relation to Frequency of Drug Use: Army, Narcotic Drug Users Only
(Projected Percentage)

Schedule of Use	Effects		
	Good	Bad	None
Daily	33.3	24.4	42.3
Several Times a Week	30.2	17.6	52.2
Weekly	21.7	20.4	57.9
Monthly	28.4	18.3	53.4
Less Often	18.4	13.0	68.7
Total	27.2	19.1	53.7

average use of each category of drugs to determine whether more frequent users of drugs were prone to encounter punitive actions. Responses were tabulated separately by Service. For this report, admitting to getting into any trouble as a result of drugs constituted the basic element of information. Results are presented for Army enlisted personnel in Table 49.

Table 49

Trouble in Service in Relation to Frequency of Narcotics Use: Army
(Projected Percentage)

Frequency of Drug Use	Trouble in Service	
	Yes	No
Daily	44.1	55.9
Several Times a Week	39.7	60.3
Weekly	40.9	59.1
Monthly	21.7	78.3
Less Often	18.2	81.8

In total, approximately 9% of the Army respondents admitted to having gotten into some type of trouble because of possession, sale, or use of some type of drug. There was a positive relationship between getting into trouble and the more frequent use of narcotic drugs. Men who reported daily or even weekly use of narcotics were more likely to report having encountered punitive trouble because of drugs than were casual users or non-users. The rates of getting into trouble varied from approximately 40% for frequent drug users to only 18% for men who use the drug less often than monthly.

An estimate of the cost of drug use was derived from a report of the amount of money spent on illegal drugs. Respondents were asked how much they had spent on illegal drugs in the past week. Answers to this item were cross-tabulated against the average use of each category of drugs. Responses were further analyzed by major geographical location categories, to control for differential drug availability/cost. Table 50

shows a distribution of weekly drug costs for admitted narcotics users in the Pacific.[1] Note that results are based on all Services combined. Most men in Southeast Asia report no weekly expenditures for illegal drugs (83%). However, there is a positive relationship between the amount spent for illegal drugs and the reported frequency of use of narcotic drugs. Of admitted daily users, more than 32% spent $25 or more for illegal drugs in the preceding week; more than 10% spent over $100. Of men who reported the use of narcotics several times a week, about 22% report spending in excess of $25 per week. For weekly users, only 9% report expenditures exceeding $25 in the preceding week.

Table 50

Weekly Expenditures for Drugs in Relation to Average Rate of Use: All Services—Pacific
(Projected Percentage)

Expenditure	Daily	Several Times A Week	Weekly	Monthly	Less Often
Zero	29.1	33.3	34.0	46.5	42.7
Under $1	12.1	10.9	22.3	17.7	22.0
$1 - $5	10.5	16.4	17.3	15.0	14.2
$6 - $10	5.8	8.2	12.7	4.4	7.4
$11 - $25	9.9	9.1	4.4	11.0	9.3
$26 - $50	13.3	10.7	2.5	4.1	2.6
$51 - $100	9.1	8.5	0.6	0.0	1.4
Over $101	10.2	2.9	6.3	1.2	0.6

In summary, while the reported use of marijuana on duty at some time is evident in each occupational skill category, this behavior was most noted for men in combat arms and may have combat effectiveness implications. In the total DoD sample, users of marijuana believe that a marijuana user can be relied upon to perform his job, while non-users tend to disagree with this statement—or don't know.

The frequent use of narcotic drugs is positively related to getting into trouble in Service for drug use among Army servicemen, although daily users of the drugs report that it either has a deleterious effect on their job performance, or that use of the drug improves job performance. Finally, the frequent use of narcotic drugs is reportedly expensive, even among men based in the Pacific where the drugs are relativ ly inexpensive.

DRUG TREATMENT AND REHABILITATION

Another major objective of the survey was to provide information on nonpunitive administrative actions that might be used to reduce the drug problem. For this reason, a composite item was generated to identify respondents who both used drugs recently and admitted to a need for help with a drug problem. A special index was created to include this important group of men, plus all other recent drug users. Thus, every man in the survey was classified into one of three categories.

[1] The Pacific area includes the sampling locations of South Vietnam, Taiwan, Thailand, Okinawa, Japan, Korea, and the Phillippines. Also included is Hawaii.

INDEX OF DRUG USE AND TREATMENT

Group Designation	Selection Criteria
Non-user (NON-USER)	Never used any drug, or used drugs more than 12 months ago
Recent User/No Help Wanted (USE/OK)	Used one or more drugs in the past year, but does *not* feel he needs help
Recent User/Help Wanted (USE/HELP)	Used one or more drugs in the past year and needs help with a drug problem

This classification was used in the evaluation of selected nonpunitive administration actions of potential applicability to control of the drug abuse problem. Before examination of these findings, it is instructive to review the estimated numbers of enlisted personnel who both admit to recent drug use and state that they need help with a drug problem. Results appear in Table 51.

Table 51

Personnel Admitting to a Need for Help With a Drug Problem: All Services
(Projected Percentages)

Service	Men Using Drugs and Admitting to a Need For Help
Army	3.0
Navy	0.8
Marine Corps	2.7
Air Force	0.4

In general, persons admitting to the need for help with a drug problem constituted a small subset of all recent drug users, and of the total enlisted population. However, the rate varied from less than 1% in the Navy and Air Force to approximately 3% in the Army and Marine Corps. Because of the substantial estimated number of men needing help in the Army (approximately 25,000), this Service was selected for the following analyses.

Drug Education Effectiveness

Drug education programs were evaluated by relating exposure to the programs to the composite index of drug use and the willingness to admit to needing help with a drug problem.

Each respondent was asked to provide a subjective assessment of the amount of drug education he had received from the Service. Specifically, he was asked to indicate how much his Service had told him about drug use. Responses were cross-tabulated against the index of drug use/need for treatment. Results for Army enlisted men appear in Table 52. Men who reported the use of drugs were less likely to report having received drug education than were men who did not report recent use of drugs.

Table 52

Drug Use and Need for Help, in Relation to Amount of Drug Education Received: Army

(Projected Percentage)

Amount of Drug Education	Use/Help	Use/OK	Non-User
A Great Deal	37.5	26.8	36.7
Quite a Bit	9.8	17.8	21.7
Some	26.1	26.9	24.4
A Little Bit	15.4	18.7	11.9
None	11.2	9.7	5.3

Each respondent was also asked to indicate when his Service first told him about drug effects. Responses to this item were related to the index of drug use/need for help. Results for Army enlisted men are given in Table 53. There was essentially no relationship between the schedule of first drug education and the index of drug use/need for help. Men who used drugs recently and admit to a need for help appear to have been trained about drugs at about the same time in their career as men who report not using drugs. However, drug users who claim to need help were more likely to maintain that they had never received drug education.

Table 53

Drug Use and Need for Help, in Relation to Schedule of First Drug Education: Army

(Projected Percentage)

Schedule	Use/Help	Use/OK	Non-User
Basic Training	37.2	48.7	41.5
Advanced Training	10.8	8.5	4.7
At First Duty Station	21.1	28.2	28.1
At a Later Duty Station	12.3	6.0	20.4
Never	18.6	8.6	5.3

Each respondent was asked to note the media of drug education to which he had been exposed. Tables were generated relating drug use/need for help to the particular media of drug education employed. Results for Army enlisted men are given in Table 54. Non-users of drugs reported differential exposure to media of drug education in Service than did drug users. Drug users who did admit to a need for help with a drug problem more frequently cited movies as the media by which they had been told about drugs. However, again the drug user who admitted to needing help with a drug problem was more likely to claim that he had never received drug education.

In summary, the selected indices of military drug education (media, schedule, amount) bear a negligible relationship to whether or not a man uses drugs and admits to needing help with a drug problem. The major finding of interest was the tendency for some drug users who need help to state that they did not receive military drug education.

Table 54

Drug Use and Need for Help, in Relation to Media of Drug Education: Army
(Projected Percentage)

Media	Use/Help	Use/OK	Non-User
Movie	24.1	17.6	11.6
Lecture	19.8	22.8	19.5
Pamphlet	6.3	5.2	3.6
Other	5.4	5.2	3.9
Never Told	18.6	8.0	5.2
Combined Ways	25.8	41.3	56.2

Preferred Drug Counselor

Access to a preferred type of counselor/confidant may be an important element in a program of drug treatment and control. Each respondent was asked with whom he would most prefer to discuss a drug problem. Table 55 shows responses to this item related to the index of drug use/need for help for men in the Army, the Service with the highest rate of recent users of each category of drugs. There was an interesting relationship between the recent use of drugs and the selection of a preferred confidant with which to discuss a hypothetical drug problem. Non-users of drugs either had no opinion, or selected a chaplain or a military physician as preferred confidant. In contrast, men who used drugs and admitted to a need for help with a drug problem most often cited a civilian physician or civilian friend as the preferred counselors. Recent drug users who did not consider their use of drugs to be a problem also preferred a civilian doctor or friend

Table 55

Drug Use and Need for Help, in Relation to Type of Person Preferred for Help With a Drug Problem: Army
(Projected Percentage)

Prefer	Use/Help	Use/OK	Non-User
Civilian Doctor	23.5	16.5	10.8
Minister	7.5	6.6	4.8
Friend	23.0	14.0	4.3
Family	8.6	10.7	6.9
Military Doctor	3.9	8.3	16.2
Medical Corpsman	4.5	2.4	1.3
Chaplain	6.8	12.1	18.4
Enlisted Man	6.3	5.6	2.8
Junior Officer	1.2	1.3	1.4
Commanding Officer	1.9	4.0	9.2
Social Worker	1.8	1.9	2.6
Other	4.2	3.6	1.7
No One	1.3	2.0	0.7
Don't Know	5.5	11.0	19.8

as confidant, or preferred a chaplain, or had no opinion. Perhaps the most important finding is the fact that the majority of drug users who need help do *not* prefer a military counselor.

Perceived Attitude of Supervisor

Another item of potential drug treatment relevance may be the perceived attitude toward drugs held by the respondent's immediate supervisor. Table 56 presents responses to this item tabulated against the index of drug use/need for help. Responses are shown for the Army, the Service with the highest percent of recent users of each category of drugs.

Table 56

Perceived Attitude of Supervisor Toward Drugs, in Relation to Drug Use and Need for Help: Army
(Projected Percentage)

Attitude	Use/Help	Use/OK	Non-User
Against all Drugs	36.1	39.0	58.2
Against Hard Drugs, Neutral on Marijuana	17.1	17.5	4.7
Don't Know	46.8	43.5	37.0

This table shows that there is a positive relationship between admitted drug use and a perceived liberal attitude of the immediate supervisor toward drugs. Among non-users of drugs, 58.2% thought their supervisor was against the use of all drugs. Among admitted drug users, approximately 36% to 39% thought their supervisor was against all drugs, whereas 17% thought that their supervisor was against hard drugs, but neutral about the use of marijuana. However, there was no apparent relationship between the respondent's recognized need for help with a drug problem and the perceived attitude of the supervisor.

Willingness to Volunteer for Treatment

The willingness of the respondent to volunteer for drug treatment in the military is a vital factor in the success of rehabilitation efforts in the Armed Forces. An item was included to determine whether men having a drug problem, would volunteer for drug treatment. Responses were divided into positive or negative replies and cross-tabulated against the index of drug use and admitted need for treatment. Analyses were separately performed and reported for each Service.

The relationship between drug use/need for help and the willingness to volunteer for drug treatment, given a drug problem, is shown in Table 57 for the four Armed Services. There was a negligible relationship between drug use/need for help and the willingness to volunteer for drug treatment among Army and Navy personnel. In general, men who admitted to the use of drugs were slightly less willing to volunteer for treatment than men who did not report the use of drugs.

An important variation on the previous analysis was conducted for the more specific topic of narcotic drug usage and rehabilitation. An item on willingness to volunteer for treatment with a heroin problem was used. Response options included VA and civilian programs as well as military programs for heroin treatment. Responses to the item were cross-tabulated against the admitted recent usage of narcotics. Results were tabulated for

Table 57

Percent Willing to Volunteer for Drug Treatment, in Relation to Drug Use and Need for Help: All Services

(Projected Percentage)

Service	Use/Help	Use/OK	Non-User
Army	78.3	72.9	80.2
Navy	73.9	70.0	82.8
Air Force	44.8	73.2	84.8
Marine Corps	56.3	69.1	79.4

each Service, and are summarized in Table 58. Frequency of drug use, an assumed indication of a drug problem, does not appear to be positively related to willingness to volunteer for either civilian, VA, or military drug treatment. Indeed, among some Service enlisted populations the relationship appears inverse. Air Force and Navy men who admit to daily narcotics use are less willing to volunteer for heroin treatment than peers who use the drugs less frequently.

Table 58

Percent Willing to Volunteer for Heroin Treatment, in Relation to Average Rate of Narcotics Use: All Services

(Projected Percentage)

Service	Drug Use		
	Daily Use	Less Often Than Daily	Never Use
Army	74.0	69.7	74.1
Navy	49.5	63.9	66.8
Air Force	50.0	62.5	68.0
Marine Corps	62.9	61.2	69.0

The inverse relationship between drug use and the willingness to volunteer for military treatment in general was previously noted where personnel who both admit to drug use and to the need for help with their drug problem were found to be less willing to volunteer for military drug treatment than were non-users of drugs.

DRUG/ALCOHOL COMPARISONS

Six survey items were concerned with the use of alcohol and efforts to prevent and treat excessive drinking. Several of these were similar in format to items on drug control and drug use already described. This similarity permits important comparisons to be made for common drug and alcohol topics, such as treatment and education for alcohol and drugs.

Weekly Expenditures

A comparison of weekly expenditures for alcohol and drugs is shown in Table 59 for the total sample. The difference in the distribution of reported weekly expenditures for alcohol or beer as compared to spending for illegal drugs is very substantial. While 86% of the total sample report no weekly expenditures for illegal drugs, only 16% report spending no money in the previous week for alcoholic beverages. Thus, most of the sample reported spending money for alcoholic beverages, but not for illicit drugs. In lieu of precise dollar expenditure data, comparisons of reported expenditures are at best suggestive. Nonetheless, these data indicate that the approximate modal expenditure for alcohol consumed in a week is between one and five dollars while the modal expenditure for illegal drugs in the previous week was reported as less than one dollar.

Table 59

Comparison of Weekly Expenditures for Illegal Drugs and Alcohol: All Services
(Projected Percentage)

Amount Spent Weekly	Illegal Drugs	Alcohol/Beer
Nothing	86.0	16.2
Less than $1	4.6	22.1
$1 - $5	3.6	39.2
$6 - $10	2.1	13.5
$11 - $25	1.7	5.9
$26 or more[a]	1.9	3.1

[a]Represents an aggregation of several dollar categories for weekly drug expenditures.

Service Educational Efforts

Exposure to various educational media of alcohol and illicit drug control was determined. Table 60 compares the extent of exposure to alcohol education media with the extent of exposure to illicit drug education media. Results are presented for the total DoD sample. The analysis yields a media comparison, as well as a comparison of "exposure" to drug or alcohol education. A larger percentage of the enlisted men report no exposure to alcohol education (27.0%) than to drug education (5.2%). Exposure to a combination of educational media was reported by the majority of enlisted men for both drug education (60.4%) and alcohol education (48.8%).

Table 60

Comparison of Exposure to Media for Illegal Drug and Alcohol Education: All Services
(Projected Percentage)

Media	Illegal Drugs	Alcohol/Beer
None	5.2	27.0
Movies	11.0	9.9
Lectures	16.5	8.6
Pamphlets	3.9	2.6
Some other source	3.1	3.2
Combination of media	60.4	48.8

Perceived Supervisory Attitudes

A comparison was made of the perceived attitudes of the immediate supervisor to drugs in contrast to alcohol. In particular, the percentage completely against the use of each type of substance was queried. For the total sample, Table 61 shows the percentage of supervisors reported to be against alcohol compared to the percentage of supervisors reported to be against all drugs. A far higher percentage of respondents perceived their supervisors to be against the use of drugs (56.9%) in contrast to being against drinking (9.2%).

Table 61

Comparison of Perceived Supervisory Attitudes Toward Illegal Drugs and Alcohol: All Services
(Projected Percentage)

Opinion	Illegal Drugs	Alcohol/Beer
Supervisor against use	56.9	9.2

Admitted Need for Treatment

An important variation on the previous finding emerges when the rates of admitted need for help for a drinking or a drug problem were compared for men who reported the use of alcohol or illegal drugs. Much higher rates of admitted need for treatment with a drinking problem than a drug problem were found in each Service. Results appear in Table 62. In the total DoD sample, approximately 1.7% of the men both used drugs and admitted to needing help with a drug problem. However, 5.3% of the men both drank alcoholic beverages and admitted to needing help with a drinking problem.

Table 62

Comparison of Rates of Admitted Need for Treatment Among Users of Illegal Drugs and Alcohol, by Service: All Services—Users Admitting Need for Help
(Projected Percentage)

Service	Users Admitting Need for Help	
	Illegal Drugs	Alcohol/Beer
Army	3.0	8.8
Navy	0.8	3.5
Marine Corps	2.7	4.3
Air Force	0.4	2.2

In summary, there are substantial differences and similarities between the alcohol and illicit drugs topics. More respondents report the receipt of education about the effects of illegal drug use than of alcohol use. While in general they demonstrate an equivalent willingness to volunteer for treatment with drug or drinking problems, higher

rates of reported need for help with drinking problems are noted. Respondents perceive their immediate supervisor as far more against the use of illegal drugs than against the use of alcohol. Furthermore, they report higher weekly expenditures for alcohol than they do for drugs. Also, the vast majority report weekly alcohol expenditures—the reverse of the findings for spending related to nontherapeutic drug use.

The apparent supervisory support of alcohol consumption in the Services, the admitted need for treatment help with drinking, and the relative dollar expenditures involved serve to indicate the potentially serious nature of the alcohol abuse problem.

DISCUSSION

NONTHERAPEUTIC DRUG USE

The results of this survey indicate that substantial numbers of enlisted men have used nontherapeutic drugs at some time during the 12 months from September 1970 to September 1971. The usage rates vary from 29.9% for marijuana to 11.7% for the narcotic drugs. However, among admitted users of the drugs, approximately equivalent proportions report very infrequent use of the drugs as report frequent use.

Moreover, the incidence of reported daily use of drugs is also quite low. With the exception of the Army, daily drug usage rates of less than 1% were reported by Servicemen for the categories of narcotic drugs, illegal drug stimulants, depressants, and psychedelic drugs other than marijuana. With the exception of the Army, reported daily usage rates were 2% or less for marijuana, the most prevalent drug.

Drug usage rates in the Army were sufficiently higher and atypical of the other Services to merit separate comment. Army enlisted personnel reported daily usage rates of approximately 3% to 4% for illegal drug stimulants, depressants, and hallucinogenic drugs other than marijuana. The overall Army estimated daily narcotics usage rate was approximately 5%, ranging from an estimated 9.2% in Vietnam to a low of 1.6% in Europe. The reported daily narcotics usage rate for Army men in CONUS was about 5%. Approximately 8% of the total Army sample reported the daily use of marijuana, with the rate ranging from 13.8% in Vietnam to 6.6% for daily marijuana use in CONUS.

The reported daily rates of drug use in the Army are higher than expected. In particular, the daily usage rates for narcotics exceed the findings of urinalysis testing—the current criterion employed in the identification and prevention of drug abuse in the Services.

These findings suggest that previous estimates of drug use based on urinalysis results may understate drug use for a variety of reasons. For example, it is possible that the anonymous survey technique correctly identifies narcotics users who evade detection by compulsory urinalysis techniques. It is possible that men who escape urinalysis detection are willing to admit to drug use in the context of an anonymous survey.

The findings of this survey indicate that a requirement exists for a well-controlled methodological study comparing urinalysis estimates of drug use to survey estimates, with a common sample of personnel employed in the study. In lieu of this comparison, or the development of a "perfect" measure or ultimate criterion of nontherapeutic drug use, the anonymous survey approach offers a cost-effective method for the comprehensive estimation of nontherapeutic drug use. It remains the only method available for estimating the use of hallucinogenic drugs, the category of drugs most frequently reported used by Servicemen. Furthermore, the anonymous survey technique is the only method available for the estimation of drug use over an extended period of time, for example, the use of drugs over the past year. Such measures may prove relevant in future attempts at evaluation of the effectiveness of military programs of drug abuse prevention and control.

DEMOGRAPHIC CORRELATES OF DRUG USE

This report served to identify a series of age-related variables as correlates of narcotics usage among Army enlisted personnel. Thus, higher daily usage rates were reported by younger men, in the lower pay grades, who were single and had minimal time in Service. Higher daily usage rates were also reported by non-whites, men with

considerable education or very limited education, and men with a history of recent overseas assignments.

An analysis of the Navy, Air Force, and Marine Corps data revealed considerable evidence for valid generalization. The same demographic correlates of daily narcotics usage applicable to Army personnel were found to apply in the other Services. In particular, the following items were related to higher reported daily narcotics usage rates in the Navy, Air Force, and Marine Corps. Higher daily narcotics usage rates were reported by younger enlisted men in the lower pay grades, who are single, with limited time in Service. Higher daily narcotics usage rates are also reported by men with very limited education or with advanced education (graduate study).

The findings of this survey are in general agreement with the results of other recent demographic analyses of nontherapeutic drug use among Army samples. An inverse relationship between age and drug use, and higher drug usage rates among single Servicemen were noted by the Press and Reinstein study groups.[1,2] An inverse relationship between rank and the use of drugs was found by several researchers.[3,4]

Higher drug usage rates among Blacks was noted in the Reinstein research, but not in the Press Fort Riley study. The Reinstein study noted that drug users tended to have less education, but no relationship between education and drug use was found by Press or by Alessi. A slight positive correlation between the use of Marijuana and educational level was found by Stanton[5] who attributed the finding to permissive attitudes toward marijuana frequently seen in American institutions of higher learning.

A particularly strong correlate of recent narcotic drug use was the use of heroin before entering the Service. In total, about 5% of the men reported pre-Service heroin use, while the in-Service rate of recent narcotics use was reported by about 12%. In the total DoD sample, men who used heroin before entering the Service were far more likely to report recent use of narcotic drugs than men who did not report use of heroin before Service. An analogous relationship was noted for marijuana use.

Pending the performance of multivariate analyses to predict the use of drugs in Service by means of demographic items and other variables, it appears safe to assume that civilian drug use is one of the most powerful predictors of the use of nontherapeutic drugs in the Services. This finding, in turn, suggests the requirement to screen potential accessions for civilian drug use.

ORIGINS OF DRUG USE

Most respondents first used nontherapeutic drugs at 19 years of age or younger. Excluding alcohol, marijuana was the first illegal drug reported used in over 70% of the

[1] Press, S.E., Panteledes, G., and Rohrbauch, M., "Drug Research Project: Summary of Preliminary Findings," official memorandum from the Mental Hygiene Consultation Service of Irwin Army Hospital to the Commanding General of Fort Riley, Kansas, 1971.

[2] Reinstein, Michael, Bradshaw, David L., Leeds, Stephen, and Thoresen, A. Robert. "Survey on the Attitudes and Incidence of Drug Use and Drinking at Fort Benning, Georgia," Technical Report for the Commanding Officer, Martin Army Hospital, Fort Benning, Georgia, 1970.

[3] Reinstein *et al., op. cit.*

[4] Alessi, Larry E. and Sontag, A. Julius. "Patterns of Drug Use in the 23d Infantry Division (Americal)," an unpublished report based on a survey of 2381 servicemen in the 23d Infantry Division. The survey was conducted in June 1971.

[5] Stanton, Morris D. "Drug Use in Vietnam: A Survey Among Army Personnel in the Two Northern Corps," Technical Report for the Department of Defense Task Group Convened to Recommend Appropriate Revisions to DoD Policy on Drug Abuse, November 1970.

cases and the major reason given was *curiosity* (65%). These findings, and the stated reason for first drug use, are in general agreement with the results of personal interviews conducted with over 230 enlisted men and officers in CONUS (Fisher, 1972). In that study "curiosity" was cited as a reason for first drug use by 86% of the respondents who used marijuana before entering the Service. Among men who used marijuana as the first illegal drug in Service, 38% cited curiosity as the reason for their use of the drug.

DRUG AVAILABILITY AND ACQUISITION

One of the basic conditions for nontherapeutic drug use is ready availability of the drug substances (Blum, *et al.* 1970). This survey indicated that narcotic drugs are reported to be available both in CONUS and in selected Southeast Asia locations (e.g., Vietnam and Okinawa).

Non-users of narcotics were not aware of local drug availability. They did not deny narcotic drug availability, but reported that they did not know whether the drugs were available. Since most of the men in NCO status (E6-9) were non-users of drugs, this finding implies that supervisory personnel are not aware of drug sources. This may indicate a lack of communication between the ranks on an important topic. Non-users of drugs in the lower pay grades (peers of drug users), however, tended to be as unaware of narcotic drug availability as the NCOs. This suggests another communication gap between members of the drug culture and their peers in rank, as well as between the upper and lower pay grades. While the latter phenomenon has been noted repeatedly (e.g., Gard, 1971), these data suggest that there may also be a lack of communication on drug matters between drug users and non-users of comparable rank.

Narcotic drug availability in Vietnam was explored for Army personnel, since this location is currently a major source of the drug problem. An analysis of heroin acquisition revealed that heroin was usually purchased, and that the typical sources were either foreign nationals or fellow servicemen. However, many of the men in Vietnam reported acquiring heroin free from a fellow serviceman. These findings suggest that a program of control of heroin sources among servicemen is essential, since servicemen participated as the supply agents in the majority of reported last heroin acquisitions among Army personnel currently in replacement battalions in Vietnam.

Further analyses of responses to items on drug acquisition, availability, and sources of supply may be performed for the other Services to assist in programs of drug abuse control.

JOB PERFORMANCE AND DRUG USE

Marijuana, the drug most frequently reported in use, was studied in terms of reported use on duty and the observation of its use. Preliminary analysis of reported marijuana use by major military occupation categories revealed that use of the drug on duty was prevalent and was not restricted to a few job categories. Marijuana use on duty was reported most frequently by men in combat arms. However, the rate of reported use on duty only varied between 6-12% for the major categories of skills in this preliminary analysis.[1]

[1] Daily narcotics usage did not appear related to any particular skill category across Services, although the incidence of daily narcotics use was very low and these extreme splits (lack of variance) may have attenuated the findings.

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Marijuana was far more frequently reported observed in use on duty than reported used on duty. In total, approximately 30% reported seeing marijuana used on duty, while only 10% reported ever using the drug on duty. In the personal interview phase of this project, approximately 7% reported use of marijuana on duty at some time, while 37% reported observing marijuana use on duty.

It is interesting to compare survey findings on observed marijuana use on duty by Service with findings from the personal interview phase of this project. In the CONUS personal interviews, 37% of the total sample reported the observation of marijuana use on duty, with higher reported rates provided by men in the Army (44%) and Marine Corps (51%) than by men in the Air Force (22%) or Navy (24%). In this worldwide survey, the corresponding rates of observed use of marijuana on duty for the Army (45.4%) and Navy (20.3%) were similar to the personal interview findings. However, survey reports for the Marine Corps (38.6%) and Air Force (12.3%) were slightly lower than the CONUS personal interviews. Nonetheless, the following conclusions hold: (a) *observation* of the use of marijuana on duty far exceeds reports of the *use* of the drug on duty; and (b) men in Army and Marine Corps are more likely to report observing the use of marijuana on duty than men in the other Services.

The discrepancy between the rate of admitted and observed marijuana use on duty may be explained by several factors. First, the use of marijuana on duty may be under reported; servicemen may be more willing to admit to the use of drugs off duty than to admit to using drugs while on the job. Second, the rates of observation of marijuana use may be inflated. For example, the reported observation of atypical behavior may have been incorrectly considered as indicative of marijuana usage. Third, both reported use and observation may be correct, but the basis for the reports may vary. Thus, each man reports personal use (or non-use) of a drug on duty, while the reports of observed drug use are elicited from each man, but may apply to the behavior of a relatively small number of drug users. Thus, many men may have observed and reported on-the-job use of marijuana that was demonstrated by a few men. It is not possible to resolve this discrepancy between reported use and observation with the present data. However, the magnitude of the difference suggests that further research on this topic is desirable. It also suggests that estimates of nontherapeutic drug use predicated on reports of observed use of drugs should be interpreted with extreme caution.

Perhaps the single most relevant question in military drug research is the extent to which the use of nontherapeutic drugs adversely affects job performance. This research suggests that the majority of enlisted personnel (86%) either do not believe that a marijuana user can be relied upon to do his job or don't know whether he can be relied on to do his job. However, admitted users of marijuana report a contrary position.

Even admitted daily users of narcotic drugs were only slightly more likely to attribute performance deterioration to drug use than were men who reported the use of narcotic drugs less frequently. However, frequent users of narcotics were more likely to report getting into difficulties in the Service because of drug use.

Evidence of on-the-job performance effects of drug use appears to be mixed, and to be influenced by the attitudes and rationalizations of drug users and non-users. Among drug users, the consensus is that the use of drugs (i.e., marijuana) does not adversely affect job performance or worker reliability. Among non-users, however, the opinion is that drug users are unreliable. In this vital domain, it appears that impartial experimental studies will be required to resolve disparities that arise from subjective reporting of conflicting opinions.

POTENTIAL FOR ALLEVIATION OF THE DRUG PROBLEM

Among the conditions prerequisite to alleviation of the drug problem in the Services are a willingness for drug users to admit to the need for treatment and rehabilitation, and the provision of appropriate services and facilities for these men. This research indicates that many drug users admit to a problem with drugs, but they may not support military programs of treatment and rehabilitation designed to help them.

In the projected DoD total sample, substantial numbers of drug users, primarily men in the Army and Marine Corps, admitted the need for help with a drug problem. If the assumption is made that drug users are reluctant to admit that their use of drugs constitutes a problem, these findings are somewhat surprising.

However, the fact that many men reported needing help with a drug problem does not indicate that they will all volunteer for military drug treatment. Indeed, two findings suggest the contrary. First, men in need of help with a drug problem tended to report an equivalent or slightly lower rate of willingness to volunteer for military drug treatment than did non-users of drugs. Willingness to volunteer for military drug treatment among men who admit to a need for help was noticeably lower in the Air Force and the Marine Corps samples than in the Army and Navy samples. These findings may indicate both a reluctance to enter treatment and an antipathy toward military drug programs among enlisted men in the drug culture.[1]

Second, men in need of help with a drug problem tended to prefer to talk about their drug problems with civilian instead of Service representatives. They were particularly partial to civilian physicians or civilian friends as counselors. They showed less preference for talking to military doctors or chaplains. An interesting finding was that non-users of drugs tended to prefer military representatives as the types of persons with whom they would talk to about a (hypothetical) drug problem.

These data suggest the possibility that the use of civilian counselors and/or civilian doctors in treatment may be desirable in attracting volunteers otherwise not disposed to enter military drug treatment. In a larger sense, the findings document the importance of research involving drug program evaluation and assessment by groups of drug users, prior to the implementation of such programs, to determine whether the programs will gain support and prove effective, or if they are in fact counterproductive. These findings suggest that non-users of drugs do *not* tend to evaluate drug treatment personnel and programs in the same way that drug users, the target group, assess the programs or the personnel who conduct the programs.

The effectiveness of current military programs of drug education was accorded a preliminary evaluation in this survey. Exposure to drug education was only slightly related to the use of drugs among Army personnel. There was little difference noted in exposure between non-users of drugs compared to drug users who did not admit to having a drug problem. However, Army men who both use drugs and admit to a need for help with a drug problem tended to report a lower rate of exposure to military drug education than non-users of drugs. A 1969 DoD personnel survey had previously indicated that individuals in the lower pay grades were not as likely to have received information about addictive drug usage than were more senior enlisted personnel (Department of Defense, 1970). The rate of drug use is, of course, much higher among men in the lower pay grades. A further analysis of drug education exposure should be made to determine whether drug-user personnel in the lower pay grades tend to avoid military

[1] The reader is also referred to the finding from the personal interview phase of this project (Fisher, 1972) that men who did not use drugs (or who used only alcohol) were far more likely to express a willingness to extend for drug treatment than were men who reported the use of amphetamines, barbiturates, or opiates.

drug education programs systematically, or if they have been excluded from those drug education programs. Furthermore, the possibility of under-reporting because of (a) confusion as to what constitutes drug education, or (b) falsification, or both should be explored.

Another finding that merits further analysis is the positive relationship between reported drug use and a perceived liberal attitude toward drug use held by the respondent's immediate supervisor. Among Army enlisted men, approximately 17% of admitted drug users reported that their supervisor was against hard drugs, but did not care about the use of marijuana. Less than 5% of Army non-users of drugs attributed this attitude to their immediate supervisor. The question becomes whether liberal supervision supports drug use, or whether drug use leads to the attribution of liberal drug attitudes to others, including an immediate supervisor. While the current survey data do not indicate the direction of causality in this relationship, the CONUS personal interview findings suggest that most supervisors had *not* communicated their attitude toward drugs to their subordinates. It is therefore possible that drug users are simply attributing a liberal attitude to their immediate supervisors, in lieu of supervisory expression of drug attitudes.

ALCOHOL AND DRUG ABUSE

The topic of alcoholism is emerging as a personnel problem to be considered with the drug abuse problem in the Services. It has been stated that an effective drug abuse program must not limit itself to one form of drug abuse such as illegal drugs (Baker, 1971). For these reasons, many of the findings that emerge from preliminary comparative analyses of parallel alcohol and illegal drug use are of relevance.

While almost 84% of the projected DoD population report expenditures for alcoholic beverages in the previous week, only 14% of the sample report any expenditure for illegal drugs. The drug figure undoubtedly understates the extent of nontherapeutic drug usage, because of the considerable free circulation of drugs. Also, drug spending may be under-reported because respondents did not wish to record the magnitude of their habits. There may be less reluctance to admitting to substantial alcohol purchases. Nonetheless, other indices indicate that the use of alcohol far exceeds the use of illegal drugs in the Service.

An index was generated to indicate any use of alcohol in the last year. Another index was formed to express any use of illegal drugs over the same period. For the total DoD sample, over 88% reported the use of alcoholic beverages in the past year, while the comparable percentage of the use of illegal drugs was approximately 33%.

Another index was formed to indicate men who both reported the use of alcohol and admitted to the need for help with a drinking problem. A parallel index was generated to express the percent of men who both reported the use of drugs and admitted to the need for help with a drug problem. For the total DoD sample, 5.3% both used alcohol and admitted to the need for help with a drinking problem. The comparable percentage for illegal drug use and the admitted need for help with a drug problem was 1.7%.

These analyses suggest that drinking and alcoholism may constitute far more pervasive personnel problems than illegal drug use and drug dependence. Although the use of drugs may be under-reported relative to the use of alcohol, these data still serve to suggest that alcohol per se is a major problem area in the Services.

The analyses of other items indicate some possible reasons for the wide use of alcoholic beverages in the Services. First, 27% of the total sample report no exposure to a program of alcohol education. The comparable rate for illegal drugs was only 5%. Second,

only 9% report that their immediate supervisor is against the use of alcohol; the comparable rate for illegal drugs was 57%. The use of alcohol in the Services thus appears to be condoned, if not promoted. The situation for nontherapeutic drugs is quite the reverse. Perhaps as a result, the use of alcohol appears pervasive, and the potential for abuse of alcohol is present.

In summary, alcohol abuse and alcoholism appear to be serious problems that deserve study on a level commensurate with the attention being appropriately expended in the study of the use of nontherapeutic drugs in the Services. A comprehensive survey of alcohol abuse and alcoholism should be initiated promptly by the Armed Forces.

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